

GenCore version 5.1.3  
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OM nucleic - nucleic search, using sw model

Run on: February 24, 2003, 10:13:33 ; Search time 226.618 Seconds  
(without alignments)  
10583.354 Million cell updates/sec

Title: US-09-922-895-2

Perfect score: 1065

Sequence: 1 ATGACACCTGCTAGATAC.....CGGAACCTCTATGCTGTTT 1065

Scoring table:

IDENTITY NUC

Gapop 10.0 , Gapext 1.0

Searched: 2185239 seqs, 112599159 residues

Total number of hits satisfying chosen parameters: 4370478

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

N.Geneseq\_101002:\*  
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2: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1981.DAT:\*  
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23: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2001B.DAT:\*  
24: /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA2002.DAT:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1065	100.0	1068	21	AAFP21266
2	1065	100.0	1068	21	AAAF35144
3	1065	100.0	1068	24	AAAD25222
4	1065	100.0	1193	17	AAAT31335
5	1065	100.0	1193	19	AAAV07403
6	1065	100.0	1201	21	AAFP21267
7	1065	100.0	1201	21	AAAF35145
8	1065	100.0	1201	24	ABK84282
9	1065	100.0	1717	24	ABL67066

10	1065	100.0	1717	24	AAAD25221	Human chemokine (C
11	1065	100.0	1915	18	AAAT85162	Human chemokine re
12	1065	100.0	3958	21	AAFP21269	Human low adenosin
13	1065	100.0	3958	21	AAAF35147	Human adenosine re
14	1065	100.0	3959	18	AAAT93601	Human eosinophil e
15	1064.2	99.9	1717	24	AAAD25245	Human chemokine (C
16	1061.8	99.7	1068	23	AB197977	Non-ecogenous hum
17	1061.8	99.7	1068	24	ABA94340	Human C-C chemokine
18	1061.8	99.7	1689	17	AAAT31334	CC-chemokine recep
19	1061.8	99.7	1689	18	AAAT58783	Human C-C chemokin
20	1061.8	99.7	1689	19	AAAV07402	Human C-C chemokin
21	1061.8	99.7	1689	21	AAAF21268	Human low adenosin
22	1061.8	99.7	1689	21	AAAF35146	Human adenosine re
23	1061.8	99.7	1689	24	ABL40462	Human C-C chemokin
24	1053.8	98.9	1116	17	AAAT31336	CC-chemokine recep
25	1052.6	98.8	1116	19	AAAV07404	Human C-C chemokin
26	1039.2	97.6	1071	18	AAAT79096	Human CCR3 chemok
27	997	93.6	3426	24	ABT04010	Human ovary specif
28	713	66.9	7201	24	ABL32337	Human immune syste
29	637.8	59.9	7201	24	ABL32336	Human immune syste
30	540.8	50.8	1065	18	AAAT86154	Human MIP-1alpha/R
31	540.8	50.8	1495	15	AAO62695	C-C chemokine rece
32	540.8	50.8	1495	21	AAFP21264	Human low adenosin
33	540.8	50.8	1495	21	AAAF35142	Human adenosine re
34	540.8	50.8	2156	18	AAAT90384	Human MIP-1 alpha/
35	540.8	50.8	2156	21	AAFP21258	Human low adenosin
36	540.8	50.8	2156	21	AAFP21262	Human low adenosin
37	540.8	50.8	2156	21	AAAF35136	Human adenosine re
38	540.8	50.8	2156	21	AAAF35140	Human adenosine re
39	540.8	50.8	2214	24	ABK83592	Human CDNA differe
40	540.8	50.8	6606	21	AAFP21265	Human low adenosin
41	540.8	50.8	6606	21	AAAF35143	Human adenosine re
42	487.2	45.7	1544	18	AAAT86839	CDNA encoding rat
43	363.4	34.1	1056	22	AAAD13198	Human G-protein ch
44	363.4	34.1	1056	22	AAAD13299	Human G-protein ch
45	363.4	34.1	1056	24	ABK51870	DNA encoding human

#### ALIGNMENTS

RESULT 1	
ID	AAFP21266 standard; DNA; 1068 BP.
AC	AAFP21266;
DT	14-MAR-2001 (first entry)
DE	Human low adenosine antisense oligonucleotide related sequence #2833.
XX	Low adenosine antisense oligonucleotide; phosphorothioate; allergy;
KW	human; airway disorder; bronchoconstriction; lung inflammation;
KW	surfactant depletion; respiratory; bronchodilator; antiinflammatory;
KW	immunosuppressive; antisthmatic; analgesic; hypotensive; cyostatic;
KW	respiratory obstruction; pulmonary; pulmonary obstruction; impeded respiration;
KW	surfactant hypoproduction; pulmonary vasconstriction; asthma; RDS;
KW	respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;
KW	pulmonary hypertension; emphysema; pulmonary transplantation rejection;
KW	chronic obstructive pulmonary disease; pulmonary infection; bronchitis;
KW	cancer; ss.
OS	Homo sapiens.
XX	WO200062736-A2.
PN	26-OCT-2000.
PD	24-MAR-2000; 2000WO-US08020.
PF	06-APR-1999; 99US-0127958.
PR	(UYEC-) UNIV EAST CAROLINA.
XX	
PA	

PA	(NINCE// NINCE J W.
XX	
Pt	Nyce JW;
XX	
DR	WPI; 2000-679539/66.
XX	
Pt	Low adenosine (A) content antisense oligonucleotides which do not
Pt	trigger adenosine receptors during metabolism, useful e.g. for treating
Pt	cancers and respiratory obstructions -
XX	
PS	Disclosure: Page 1182; 1592pp; English.
XX	
CC	The present invention describes low adenosine (A) content antisense
CC	oligonucleotides and compositions (I) comprising them. In the antisense
CC	oligonucleotides the A is replaced by a 'universal' or alternative base.
CC	(I) can have respiratory, bronchodilator, antiinflammatory, analgesic,
CC	immunosuppressive, antisthmatic, hypotensive and cytostatic activities.
CC	The antisense oligonucleotides and (I) can be used to down-regulate the
CC	expression and/or activity of target polypeptides associated with
CC	lung/respiratory disorders and malignancies, such as stimulating and
CC	activating peptide factors and transmitters, transcription factors,
CC	immunoglobulins and antibodies, antibody receptors, cytokines and
CC	chemokines, endogenously produced specific and non-specific enzymes,
CC	binding proteins, adhesion molecules and their receptors, cytokine and
CC	chemokine receptors, adenosine receptors, bradykinin receptors, central
CC	nervous system (CNS), and peripheral nervous and non-nervous system
CC	transmitters, defensins, growth factors, vasoactive peptides and
CC	receptors, binding proteins and malignancy associated proteins. The
CC	antisense oligonucleotides may be used in this way to treat disorders
CC	including respiratory obstruction (especially pulmonary obstruction
CC	and/or bronchoconstriction) and/or lung inflammation, allergy(ies)
CC	and/or surfactant hypoproduction and/or which are associated with a disease or
CC	condition selected from pulmonary vasoconstriction, inflammation,
CC	allergies, asthma, impeded respiration, respiratory distress syndrome
CC	(RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary
CC	hypertension, emphysema, chronic obstructive pulmonary disease (COPD),
CC	pulmonary transplantation rejection, pulmonary infections, bronchitis,
CC	and/or cancer. AAF18434 to AAF1543 represent human polynucleotide
CC	fragments and antisense oligonucleotides used in the exemplification of
CC	the present invention.
CC	
XX	
SQ	Sequence 1068 BP: 231 A; 289 G; 243 G; 305 T; 0 other:
	Query Match            100.0%; Score 1065; DB 21; Length 1068;
	Best Local Similarity   100.0%; Pred. No. 1.6e-313;
	Matches 1065; Conservative      0; Mismatches     0; Indels       0; Gaps
OY	1 ATGACAACTCACTAGATACAGTTTGAGACTTGGACCAATCGTACATGATGACGG 60
DB	1 ATGACAACTCACTAGATACAGTTTGAGACTTGGACCAATCGTACATGATGACGG 60
OY	61 GGCGTCGTCTGTGA AAAAGCTGATACCAGAGACAGTGTATGGCCAGTTTGCCCCGCTG 120
DB	61 GGCGTCGTCTGTGA AAAAGCTGATACCAGAGACAGTGTATGGCCAGTTTGCCCCGCTG 120
OY	121 TACTCCCGTGGTTCACATGTTGGGCCCTTGGGCATATGCTGTGATATCTCTCAT 180
DB	121 TACTCCCGTGGTTCACATGTTGGGCCCTTGGGCATATGCTGTGATATCTCTCAT 180
OY	181 AAATACAGAGAGCTCGAATTATGACAACATCTACTCTCAACCTGGCCATTTCGGAC 240
DB	181 AAATACAGAGAGCTCGAATTATGACAACATCTACTCTCAACCTGGCCATTTCGGAC 240
OY	241 CTGCTCTTCTGTGTAACCTTCATTTCTGGAATCACATATGTCAAGGGGGCATTAACGTGGTT 300
DB	241 CTGCTCTTCTGTGTAACCTTCATTTCTGGAATCACATATGTCAAGGGGGCATTAACGTGGTT 300
OY	301 TTGGGCGATGGATGTGAAGCMCGTCACAGGGTTTTATCACACAGGCTTGAACAGCGAG 360
DB	301 TTGGGCGATGGATGTGAAGCMCGTCACAGGGTTTTATCACACAGGCTTGAACAGCGAG 360
OY	361 ATCTTTTATATATCCCTGCTGACAATGACAGAGTACTCTGGCCATTGTCCATCTGTGTTT 420

Db	361	ATCTTTTTCATATCTCGCTGCAAAATCGAGGTACTGTCCTGGCATTTGTCATTCGTCTGT	420
Qy	421	GCCCTTCGAGCCCGGACTGTCACTTTTGGTGTCTATCCACGAGCATGTCACCTGGGCGCTG	480
Db	421	GCCCTTCGAGCCCGGACTGTCACTTTTGGTGTCTATCCACGAGCATGTCACCTGGGCGCTG	480
Qy	481	GCACTGCTACAGAGCTCTTCCCTGAATTTATCTCTATAGAACACTGAAGAGTGTTTGAAG	540
Db	481	GCAGTGTCTAGAGCTCTTCCCTGAATTTATCTCTATAGAACACTGAAGAGTGTTTGAAG	540
Qy	541	ACTGTTTGCAGTGTCTTATACCCAGAGATACAGTATATAGCTGGAGGCAATTTCCACT	600
Db	541	ACTGTTTGCAGTGTCTTATACCCAGAGATACAGTATATAGCTGGAGGCAATTTCCACT	600
Qy	601	CTGAGATGACCATCTTCTGTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT	660
Db	601	CTGAGAAATGACCATCTTCTGTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT	660
Qy	661	GGATCATCAAAAACGCTGTGAGGTGCCAGTAAAAAAGATACAAAGCCATCCGGCTC	720
Db	661	GGATCATCAAAAACGCTGTGAGGTGCCAGTAAAAAAGATACAAAGCCATCCGGCTC	720
Qy	721	ATTTTGTCTATCATGCGCGTGTTTTCATTTTCTGTGACACCCCTACAAATGTGGCTATCCT	780
Db	721	ATTTTGTCTATCATGCGCGTGTTTTCATTTTCTGTGACACCCCTACAAATGTGGCTATCCT	780
Qy	781	CTCTCTTCCTATCAATCATCATCTTATTTGGAAATGACTGTGACGCGAGCATCTGTGAC	840
Db	781	CTCTCTTCCTATCAATCATCATCTTATTTGGAAATGACTGTGACGCGAGCATCTGTGAC	840
Qy	841	CTGCTCATGCTGTGTGACAGAGGTATGCGCTACTCCCATGCTGTGCATGAACCCGGTATC	900
Db	841	CTGCTCATGCTGTGTGACAGAGGTATGCGCTACTCCCATGCTGTGCATGAACCCGGTATC	900
Qy	901	TACGCTTTGTTGGAGAGAGTTCGGAAGTACCTGCGCATCTTCTTCACAGGCACCTG	960
Db	901	TACGCTTTGTTGGAGAGAGTTCGGAAGTACCTGCGCATCTTCTTCACAGGCACCTG	960
Qy	961	CTCATGCACTGTGGGCAATACATCCCATTCCTCTATGAGAAAGCTGTGAAGAACACAGC	1020
Db	961	CTCATGCACTGTGGGCAATACATCCCATTCCTCTATGAGAAAGCTGTGAAGAACACAGC	1020
Qy	1021	TCTGTCTCTCATCCACAGCAGAGCCGGAATCTCTATTGTGTTT	1065
Db	1021	TCTGTCTCTCATCCACAGCAGAGCCGGAATCTCTATTGTGTTT	1065
RESULT 2			
AAA35144			
ID	AAA35144	standard; DNA; 1068 bp.	
AC	AAA35144:		
XX	28-JUL-2000	(first entry)	
DE	Human adenosine receptor related polynucleotide 2nd SWO ID NO:18.		
XX	Human; adenosine receptor; low adenosine antisense oligonucleotide;		
KW	phosphorothioate; impaired respiration; inflammation; allergy;		
KW	allergic disease; bronchoconstriction; inhibitor; antiinflammatory;		
KW	antiallergic; antiasmatic; cytosatic; analgesic; impaired airway;		
KW	lung disease; ischemic condition; pulmonary vasoconstriction; asthma;		
KW	respiratory distress syndrome; pain; cystic fibrosis; emphysema;		
KW	pulmonary hypertension; chronic obstructive pulmonary disease; COPD;		
XX	cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.		
OS	Homo sapiens.		
XX	Wo200009525-A2.		
PM	Wo200009525-A2.		
XX	24-FEB-2000		
PD			
XX			

PF 03-AUG-1999; 99WO-US17712.  
 XX 03-AUG-1998; 98US-0095212.  
 XX (UYEC-) UNIV EAST CAROLINA.  
 PA Myce JW;  
 XX WPI: 2000-205971/18.  
 DR  
 XX  
 PT New antisense oligonucleotides useful for treating e.g. pulmonary  
 PT vasocostriction, inflammation, allergies, asthma, hypertension,  
 PT bronchitis, emphysema, respiratory distress syndrome, ischemia or  
 PT cancers -  
 XX  
 PS Disclosure: Page 1102; 1343pp; English.

CC The present invention describes a new composition comprising an  
 CC antisense oligonucleotide (ON) with low adenosine (up to 15%), which  
 CC targets nucleic acids involved in bronchoconstriction, allergies, and/or  
 CC inflammation. The ON can have antiinflammatory, antiallergic,  
 CC antasthmatic, cytostatic and analgesic activities. The compositions are  
 CC useful for the treatment of diseases associated with inflammation,  
 CC impaired airways, including lung disease and diseases whose secondary  
 CC effects afflict the lungs of a subject. They can be used for treating  
 CC e.g. ischemic conditions, pulmonary vasoconstriction, allergies,  
 CC asthma, impaired respiration, respiratory distress syndrome, pain, cystic  
 CC fibrosis, pulmonary hypertension, emphysema, chronic obstructive  
 CC pulmonary disease (COPD), and cancers such as leukemias, lymphomas,  
 CC carcinomas, and cancers which may metastasize to the lungs, including  
 CC breast and prostate cancer. The reduction of the adenine content of  
 CC the ONs reduces side effects. The A-containing ONs break down with the  
 CC release of deoxyadenosine which activates adenosine receptors causing the  
 CC bronchoconstriction and inflammation. AAA32313 to AAA5312 represent the  
 CC nucleotide sequences given in the sequence listing from the present  
 CC invention, which correspond to SEQ ID NO:1 to 2815, and then the last  
 CC 185 sequences are also called SEQ ID NO:1 to 185, but the sequences  
 CC differ from the previously named sequences. SEQ ID NO:11 to 1680  
 CC (AAA32323 to AAA33992) are specifically claimed ONs from the present  
 CC invention. N.B. Sequences given in the disclosure of the present  
 CC invention do not match up with their corresponding SEQ ID NO: sequences  
 CC given in the sequence listing.  
 CC  
 XX Sequence 1068 BP; 231 A; 289 C; 243 G; 305 T; 0 other;

Query Match 100.0%; Score 1065; DB 21; Length 1068;  
 Best Local Similarity 100.0%; Pred. No. 1.6e-313;  
 Matches 1065; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGACAACTCACTAGATACAGTTCGAGACCTTGGTACACATCTCATATGATGACGTG 60  
 |||||  
 DB 1 ATGACAACTCACTAGATACAGTTCGAGACCTTGGTACACATCTCATATGATGACGTG 60  
 QY 61 GGCCTGCTCTGTGAAAAGCTGATACAGACGACGTGATGTCGCCCGCGCTG 120  
 |||||  
 DB 61 GGCCTGCTCTGTGAAAAGCTGATACAGACGACGTGATGTCGCCCGCGCTG 120  
 QY 121 TACTCCTGCTGATCACTGTGGGCTTGGGCAATGTGGTGTGATGATCCCTCA 180  
 |||||  
 DB 121 TACTCCTGCTGATCACTGTGGGCTTGGGCAATGTGGTGTGATGATCCCTCA 180  
 QY 181 AATATACAGAGGCTCCGAAATATGACCAACATCTACCTGCTCAACCTGGCCATTTGGAC 240  
 |||||  
 DB 181 AATATACAGAGGCTCCGAAATATGACCAACATCTACCTGCTCAACCTGGCCATTTGGAC 240  
 QY 241 CTGCTCTTCTCTGTACACCTTCATTTCTGATGACACTATGTCAGGGGCAATACTGGGTT 300  
 |||||  
 DB 241 CTGCTCTTCTCTGTACACCTTCATTTCTGATGACACTATGTCAGGGGCAATACTGGGTT 300  
 QY 301 TTGAGCATGGCATGTGTAAAGCTCTCAAGGTTTATACACAGGCTTGTACAGCGAG 360  
 |||||  
 DB 301 TTGAGCATGGCATGTGTAAAGCTCTCAAGGTTTATACACAGGCTTGTACAGCGAG 360

QY 361 ATCTTTTTCATATATCCCTGCTGACAAATGACAGGTACCTGGCCATTGCTCATCTGTGTTT 420  
 |||||  
 DB 361 ATCTTTTTCATATATCCCTGCTGACAAATGACAGGTACCTGGCCATTGCTCATCTGTGTTT 420  
 QY 421 GCCCTTTCGAGCCCGGAGCTGTACCTTTGGTGTATCACCAGCATGCTACCTGGGGCTTG 480  
 |||||  
 DB 421 GCCCTTTCGAGCCCGGAGCTGTACCTTTGGTGTATCACCAGCATGCTACCTGGGGCTTG 480  
 QY 481 GCAGTGTGTCAGAGCTCTTCCGAAATTTATCTTATGACAGCAAGAGTGTGTTGAAGG 540  
 |||||  
 DB 481 GCAGTGTGTCAGAGCTCTTCCGAAATTTATCTTATGACAGCAAGAGTGTGTTGAAGG 540  
 QY 541 ACTCTTTGCAAGTCTCTTTACCCAGAGATACAGTATATAGCTGGAGGATTTCCACAT 600  
 |||||  
 DB 541 ACTCTTTGCAAGTCTCTTTACCCAGAGATACAGTATATAGCTGGAGGATTTCCACAT 600  
 QY 601 CTGAGATGACCATCT 660  
 |||||  
 DB 601 CTGAGATGACCATCT 660  
 QY 661 GGAATCATCAAAAGCTGCTGAGGTCGCCAGTAAAGTAAAGTAAAGGCAATCCGGCTC 720  
 |||||  
 DB 661 GGAATCATCAAAAGCTGCTGAGGTCGCCAGTAAAGTAAAGTAAAGGCAATCCGGCTC 720  
 QY 721 ATTTTGTATCATGAGCGGTGTTTTCATTTCTGACACACCTACATGTGGCTATCCTT 780  
 |||||  
 DB 721 ATTTTGTATCATGAGCGGTGTTTTCATTTCTGACACACCTACATGTGGCTATCCTT 780  
 QY 781 CTCTCTCTATCATCATCTTATTTGGAATGACTGTGACCGGACAGCATCTGAC 840  
 |||||  
 DB 781 CTCTCTCTATCATCATCTTATTTGGAATGACTGTGACCGGACAGCATCTGAC 840  
 QY 841 CTTGCTATCTGCTGATGACAGGTGATGCTGCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 900  
 |||||  
 DB 841 CTTGCTATCTGCTGATGACAGGTGATGCTGCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 900  
 QY 901 TACGCTTTTGTGAGAGAGTTCGGAAGTACCTGCGCCTCTTCCACAGGACCTTG 960  
 |||||  
 DB 901 TACGCTTTTGTGAGAGAGTTCGGAAGTACCTGCGCCTCTTCCACAGGACCTTG 960  
 QY 961 CTATGACACCTGGGAGATATCATCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 1020  
 |||||  
 DB 961 CTATGACACCTGGGAGATATCATCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 1020  
 QY 1021 TCTGCTCTCCATCCACAGCAGAGCGGAGCTCTATTTGTGTTT 1065  
 |||||  
 DB 1021 TCTGCTCTCCATCCACAGCAGAGCGGAGCTCTATTTGTGTTT 1065

RESULT 3  
 AAD25222  
 ID AAD25222 standard; cDNA; 1068 BP.  
 XX AAD25222;  
 AC 12-MAR-2002 (first entry)  
 DT  
 XX  
 DE Human chemokine (C-C motif) receptor 3 (CCR3) cDNA.  
 XX  
 KW Human; chemokine (C-C motif) receptor 3; CCR3 gene; haplotyping;  
 KW genotyping; type IV hypersensitivity reaction; HIV-1; gene therapy;  
 KW human immunodeficiency virus 1; single nucleotide polymorphism; SNP;  
 KW chromosome 3p21.3; ss.  
 OS Homo sapiens.  
 XX  
 XX Key Location/Qualifiers  
 FH replace (51, C)  
 FT variation  
 FT /tag= a  
 FT /standard\_name= "Single nucleotide polymorphism (SNP)"  
 FT /note= "Polymorphic site (ps) 3"  
 FT 1..1068  
 FT /tag= b  
 FT CDS

FT	/product= "Human CCR3 protein"
FT	replace (1052, C)
FT	//tag- C
FT	/standard.name= "Single nucleotide polymorphism (SNP)"
FT	/note= "Polymorphic site (PS) 4"
PN	
XX	W0200187908-A2.
XX	
PD	22-NOV-2001.
XX	
PF	18-MAY-2001; 2001WO-US16278.
XX	
PR	18-MAY-2000; 2000US-205191P.
XX	
PA	(GENA-) GENAISSANCE PHARM INC.
PI	
PI	Choi JY, Kazemi A, Koshy B;
DR	
DR	WP1: 2002-055681/07.
DR	P-PDSB; AAIEI5320.
XX	
PT	Isolated polymorphic variants of chemokine (C-C motif) receptor 3
PT	(CCR3) gene useful for studying function of CCR3, expressing the CCR3
PT	protein and to screen drugs to treat CCR3 activity-related diseases -
XX	
XX	Claim 25a; Fig 2; 53bp; English.
XX	
CC	The invention relates to genetic variants of human chemokine (C-C motif)
CC	receptor 3 (CCR3) gene. The invention also relates to compositions and
CC	methods for haplotyping and/or genotyping the CCR3 gene in an individual.
CC	Polynucleotides of the invention are useful for studying the expression
CC	and function of CCR3 and in expressing CCR3 proteins for use in screening
CC	candidate drugs to treat diseases related to CCR3 activity. They are also
CC	used in gene therapy. The polymorphism and haplotype data is useful for
CC	validating whether CCR3 is a suitable target for drugs to treat type IV
CC	hypersensitivity reactions and human immunodeficiency virus (HIV)-1,
CC	screening for such drugs and reducing bias cells in clinical trials of
CC	such drugs. The genotyping method is useful for determining whether an
CC	individual has one haplotype or haplotype pairs. The haplotyping method
CC	is useful for improving the efficiency and outcome of several steps in
CC	the discovery and development of drugs for treating diseases associated
CC	with CCR3 activity such as type IV hypersensitivity reactions and HIV-1.
CC	The present sequence is human CCR3 cDNA. The CCR3 gene is located on
CC	chromosome 3p21.3.
XX	
XQ	Sequence 1068 BP; 231 A; 289 G; 243 G; 305 T; 0 other;
Query Match	100.0%; Score 1065; DB 24; Length 1068;
Best Local Similarity	100.0%; Pred. No. 1.6e-313;
Matches 1065; Conservative	0; Mismatches 0; Indels 0; Gaps 0;
OY	1 ATGACAACTCACTAGATACACTTGAAGACCTTTGGTACCACATCTACTATGATGACGTG 60
Db	1 ATGACAACCTCATCGATATACAGTTAGAACCTTTGGTAGACACATCTACTATGATGACGTG 60
OY	61 GGCGTCGCTGTGAAAAAGCTGATATACAGAGACATGATGGCCCAAGTTTGTCGCCCGCTG 120
Db	61 GGCGTCGCTGTGAAAAGCTGATATACAGAGACATGATGGCCCAAGTTTGTCGCCCGCTG 120
OY	121 TACTCCCGTGTACAGTGTGGCGCTTGGGCATATGCGTGTGATATCTCTCARA 180
Db	121 TACTCCCGTGTACAGTGTGGCGCTTGGGCATATGCGTGTGATATCTCTCARA 180
OY	181 AAATACAGAGAGCTCCGAATTATGACAAACATCTACCTCACTGAGCCATTTCGGAC 240
Db	181 AAATACAGAGAGCTCCGAATTATGACAAACATCTACCTCACTGAGCCATTTCGGAC 240
OY	241 CTGCTCTTCTCTGTCACCCCTTCATCTTGGATGCACATATGTCAGGGGGCATTAAGTGGTT 300
Db	241 CTGCTCTTCTCTGTCACCCCTTCATCTTGGATGCACATATGTCAGGGGGCATTAAGTGGTT 300
OY	301 TTGGCCATGGCATGTGTAAAGTCTCTTCAGGGTTTTATCACAGAGCTTGTACAGCCAG 360
Db	301 TTGGCCATGGCATGTGTAAAGTCTCTTCAGGGTTTTATCACAGAGCTTGTACAGCCAG 360

Db	301	TTTGGCCATGGCAGTGTAGTCCCTCTCAGGGTTTATACACAGAGCTTACAGGCAG	360
Oy	361	ATCTTTTTCATATATCTGCTGACAAATGCAGAGGTACCTGGCAATTCATGCTGT	420
Db	361	ATCTTTTTCATATATCCGTGTGACAAATGCAGAGGTACCTGGCAATTCATGCTGT	420
Oy	421	GCCCTTGAGCCGCGACGTGCACCTTTTGGTGTATCCAGCATCTGCACCTGGGCCGTG	480
Db	421	GCCCTTGAGCCGCGACGTGCACCTTTTGGTGTATCCAGCATCTGCACCTGGGCCGTG	480
Oy	481	GCATGCTAGACAGCTCTTCCGTGAATTTATCTCTATGACACTGAAGAGTTGTTGAAG	540
Db	481	GCATGCTAGACAGCTCTTCCGTGAATTTATCTCTATGACACTGAAGAGTTGTTGAAG	540
Oy	541	ACTCTTTGCAGTGTCTTTTACCAGAGAGATACAGTATATAGCTGAGGCATTTTCACACT	600
Db	541	ACTCTTTGCAGTGTCTTTTACCAGAGAGATACAGTATATAGCTGAGGCATTTTCACACT	600
Oy	601	CTGGAATGACCATCTTCTGTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT	660
Db	601	CTGGAATGACCATCTTCTGTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT	660
Oy	661	GGATCATCAAAAACGCGTGCAGAGTCCCAAGAAAAAAATACAAAGCCATCCGCTC	720
Db	661	GGATCATCAAAAACGCGTGCAGAGTCCCAAGAAAAAAATACAAAGCCATCCGCTC	720
Oy	721	ATTTTTCATCATAGCGCGGTGTTTTCATTTCTGAGACACCTACAAATGTGGCTATCCT	780
Db	721	ATTTTTCATCATAGCGCGGTGTTTTCATTTCTGAGACACCTACAAATGTGGCTATCCT	780
Oy	781	CTCTCTTCTCATCATCATCATCTTATTTGGAAATGACTGTGAGCGGACAGCATCTGAC	840
Db	781	CTCTCTTCTCATCATCATCATCTTATTTGGAAATGACTGTGAGCGGACAGCATCTGAC	840
Oy	841	CTGTCATGCGTGGGAGAGAGTGTATCGGCTACTCTCCATCTGTGATGAACCCGGTATC	900
Db	841	CTGTCATGCGTGGGAGAGAGTGTATCGGCTACTCTCCATCTGTGATGAACCCGGTATC	900
Oy	901	TAGCCCTTTGTTGGAGAGAGGTTCCGGAATGATCCTGCGCACTTCTTCACAGGCATTG	960
Db	901	TAGCCCTTTGTTGGAGAGAGGTTCCGGAATGATCCTGCGCACTTCTTCACAGGCATTG	960
Oy	961	CTCATGCACTGGGCGAGATACATCCATTCCTTCTCTAGTGAAGAACTGGAAAGAACCGC	1020
Db	961	CTCATGCACTGGGCGAGATACATCCATTCCTTCTCTAGTGAAGAACTGGAAAGAACCGC	1020
Oy	1021	TCTGCTCTCCATCCACAGAGAGCGGAACCTCATATGTGTTT	1065
Db	1021	TCTGCTCTCCATCCACAGAGAGCGGAACCTCATATGTGTTT	1065
RESULT 4			
AAT31335			
ID	AAT31335 standard; cDNA; 1193 BP.		
XX	AAT31335;		
AC	15-NOV-1996 (first entry)		
XX	CC-chemokine receptor 3 cDNA clone.		
DE	CC-chemokine receptor 3 cDNA clone.		
XX	CC-chemokine receptor 3; CRP-3; Eos-12; inhibitor; antisense;		
KW	antiinflammatory; eosinophil; ss.		
XX	Homo sapiens.		
OS	Homo sapiens.		
XX	Key		
FH	Location/Qualifiers		
FT	92..1159		
FT	/*tag= a		
FT	918..919		
FT	variation		
FT	/*tag= b		
FT	/note= "CR-3 cDNA clone has GC at positions		
TT	918-919, coding for serine (AGC) at		

FT position 276; a genomic clone has CG at  
 FT these positions, coding for threonine  
 (AGC)\*

PN W09622371-A2.

PD 25-JUL-1996.

PF 19-JAN-1996; 96MO-US00608.

PR 19-JAN-1995; 95US-03/5199.

XX (BGHM) BRIGHAM & WOMENS HOSPITAL.

PA (CHIL-) CHILDRENS MEDICAL CENT.

XX (LEUK-) LEUKOSITE INC.

PI Gerard CJ, Gerard NP, Mackay CR, Ponath PD, Post TW;

PI Qln S;

DR WPI: 1996-354528/35.

DR P-PSDB: AAM03377.

PT Mammalian chemokine receptor-3 and related nucleic acids - useful to  
 PT identify receptor inhibitors to treat inflammatory disease, e.g.  
 PT autoimmune disorders, certain cancers, etc.

PS Claim 1: Page 111-113; 153pp; English.

XX A genomic DNA clone (AAT31335) codes for a novel receptor (AAM03377),  
 CC designated Eos L2 or C-C chemokine receptor 3 (CCR-3), involved  
 CC in leukocyte migration associated with inflammation. It was  
 CC isolated from a human library constructed from eosinophils obtd.  
 CC from a patient with hyper-eosinophilic syndrome using a probe  
 CC (p4 CDN) encoding the HRP-1alpha/RANTES receptor. A CCR-3  
 CC genomic clone (AAT31334) was also isolated, and a consensus sequence  
 CC is given in AAT31336. The cDNA and genomic clones can be used for  
 CC the prodn. of recombinant CCR-3 in host cells, or to design  
 CC antisense sequences useful for treating inflammatory disease.

XX Sequence 1193 BP; 274 A; 310 C; 275 G; 334 T; 0 other;

Query Match 100.0%; Score 1065; DB 17; Length 1193;  
 Best Local Similarity 100.0%; Pred. No. 1.6e-313;  
 Matches 1065; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGACAACTCTAGATGATGAGACCTTGGTACCACTCTACTATGATGACGTG 60  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 92 ATGACAACTCTAGATGATGAGACCTTGGTACCACTCTACTATGATGACGTG 151  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 61 GGCCTGCTCTGTAAGAAAGCTGATACAGAGCATGATGGCCAGTTTGGCCCGCTG 120  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 152 GGCCTGCTCTGTAAGAAAGCTGATACAGAGCATGATGGCCAGTTTGGCCCGCTG 211  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 121 TACTCCCTGCTGATGATGAGGCTCTTGGCAATGATGATGATGATGATGATGAT 180  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 212 TACTCCCTGCTGATGATGAGGCTCTTGGCAATGATGATGATGATGATGATGATGAT 271  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 181 AATATCAGAGGCTCGAATATGACCAATCTACTCTCAACTGGCCATTTGGGAC 240  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 272 AATATCAGAGGCTCGAATATGACCAATCTACTCTCAACTGGCCATTTGGGAC 331  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 241 CTGCTCTTCTGCTGATCACTTCTGATGATGATGATGATGATGATGATGATGATGAT 300  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 332 CTGCTCTTCTGCTGATCACTTCTGATGATGATGATGATGATGATGATGATGATGAT 391  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 301 TTTGGCCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 360  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 392 TTTGGCCATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 451  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 361 ATCTTTTATATATCTGCTGATGATGATGATGATGATGATGATGATGATGATGATGAT 420  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 452 ATCTTTTATATATCTGCTGATGATGATGATGATGATGATGATGATGATGATGATGAT 511  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||

QY 421 GCCCTTGCAGCCCGGAGCTGATCACTTTTGGTGTATCACCAGCATGCTGAGGCGCTG 480  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 512 GCCCTTGCAGCCCGGAGCTGATCACTTTTGGTGTATCACCAGCATGCTGAGGCGCTG 571  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 481 GCAGTGTAGACAGCTCTTCCCTGAATTTATCTTATGAGACTGAAGAGTTGTTGAAG 540  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 572 GCAGTGTAGACAGCTCTTCCCTGAATTTATCTTATGAGACTGAAGAGTTGTTGAAG 631  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 541 ACTCTTTGACAGCTCTTTTACCAGAGATACAGTATATAGCTGAGGCAATTTCCACT 600  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 632 ACTCTTTGACAGCTCTTTTACCAGAGATACAGTATATAGCTGAGGCAATTTCCACT 691  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 601 CTGAGATGACCATCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 660  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 692 CTGAGATGACCATCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 751  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 661 GGAATCATCAAAACGCTGCTGAGTGGCCAGTAAAGAGTAAAGAGGCAATCCGGCTC 720  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 752 GGAATCATCAAAACGCTGCTGAGTGGCCAGTAAAGAGTAAAGAGGCAATCCGGCTC 811  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 721 ATTTTGTGATCATGAGCGGCTGTTTTCATTTTCTGAGACACCTACAGTGGCTATCCTT 780  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 812 ATTTTGTGATCATGAGCGGCTGTTTTCATTTTCTGAGACACCTACAGTGGCTATCCTT 871  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 781 CTCTCTTCTATCAATCCATCTTATTTGGAATGACTGAGCGGAGCAAGCATCTGGAC 840  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 872 CTCTCTTCTATCAATCCATCTTATTTGGAATGACTGAGCGGAGCAAGCATCTGGAC 931  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 841 CTGATCATGCTGCTGAGTGAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 900  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 932 CTGATCATGCTGCTGAGTGAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 991  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 901 TACGCTTTGTTGAGAGAGGTTCCGGAATGACCTGCGCACTTCTTCCACAGCACTTG 960  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 992 TACGCTTTGTTGAGAGAGGTTCCGGAATGACCTGCGCACTTCTTCCACAGCACTTG 1051  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 961 CTGATCATGCTGCTGAGTGAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1020  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 1052 CTGATCATGCTGCTGAGTGAATGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 1111  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 1021 TCTGTCTCTCATCCACAGAGCGGAGAACTCTATTTGTTT 1065  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 QY 1112 TCTGTCTCTCATCCACAGAGCGGAGAACTCTATTTGTTT 1156  
 DB ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 RESULT 5  
 AA07403 standard; cDNA; 1193 BP.  
 ID AA07403;  
 AC AA07403;  
 AC AA07403;  
 DT 28-SEP-1998 (first entry)  
 DE Human C-C chemokine receptor 3 cDNA.  
 DE Human C-C chemokine receptor 3 cDNA.  
 KW C-C chemokine receptor 3; CCR3; Eos L2; human;  
 KW G protein-coupled receptor; leukocyte; antibody; antagonist;  
 KW inflammation; allergy; asthma; graft rejection; infection;  
 KW autoimmune disease; drug screening; therapy; ds.  
 OS Homo sapiens.  
 OS Homo sapiens.  
 XX Homo sapiens.  
 XX Homo sapiens.  
 FT Key Location/Qualifiers  
 FT CDS 92..1159  
 FT FT /\*tag= a  
 PN W09814480-A1.  
 PD 09-APR-1998.  
 PD 09-APR-1998.  
 PF 24-SEP-1997; 97MO-US17103.  
 PF 24-SEP-1997; 97MO-US17103.  
 PR 30-SEP-1996; 96US-0720565.

XX (LEUK-) LEUKOSITE INC.  
 XX  
 PA Mackay CR, Ponath PD;  
 PI  
 XX WPT: 1998-286418/25.  
 XX P-PSDB: AAW51745.  
 XX  
 XX Antibodies to chemokine receptor-3 protein - useful for diagnosis  
 PT and treatment of inflammatory conditions, e.g. allergy, asthma,  
 PT autoimmune disease, graft rejection or cancer  
 XX  
 XX Example 8; Page 134-136; 185pp: English.

XX This cDNA codes for novel human C-C chemokine receptor 3 (see  
 CC AAW51745), also designated CKR-3, CCR3 or Eos I2, that binds and  
 CC mediates chemotaxis in response to chemokines such as eotaxin,  
 CC RANTES and MCP-3. The cDNA was isolated from a human eosinophil  
 CC cDNA library constructed from eosinophils obtained from a patient  
 CC with hypereosinophilic syndrome, and using CKR-1 cDNA as probe. A  
 CC genomic DNA sequence (see AAV07402) is also provided as well as a  
 CC consensus sequence (see AAV07404) for CKR-3. The invention relates  
 CC to isolated and/or recombinant nucleic acids encoding CKR-3,  
 CC isolated or recombinant CKR-3 polypeptides, recombinant nucleic  
 CC acid constructs, host cells useful for production of recombinant  
 CC CKR-3 proteins, to antibodies reactive with the receptors, and to  
 CC methods of using these products to identify ligands, antagonists  
 CC and agonists of receptor function. Inhibitors of CKR-3 can be used  
 CC to treat: inflammatory or allergic diseases and conditions,  
 CC including respiratory allergic diseases such as asthma, allergic  
 CC rhinitis, hypersensitivity lung disease, hypersensitivity  
 CC pneumonitis, eosinophilic pneumonia (e.g. Loeffler's syndrome,  
 CC chronic eosinophilic pneumonia, interstitial lung disease (ILD)  
 CC e.g. idiopathic pulmonary fibrosis or ILD associated with  
 CC rheumatoid arthritis, systemic lupus erythematosus, ankylosing  
 CC spondylitis, systemic sclerosis, Sjogren's syndrome, polyositis  
 CC or dermatomyositis), systemic anapylaxis or hypersensitivity  
 CC responses, drug allergy, insect sting allergy, inflammatory bowel  
 CC disease, such as Crohn's disease and ulcerative colitis,  
 CC spondyloarthritis, scleroderma, psoriasis, inflammatory  
 CC dermatosis such as dermatitis, eczema, atopic dermatitis,  
 CC allergic contact dermatitis, urticaria, vasculitis (e.g. necrotizing,  
 CC cutaneous and hypersensitivity vasculitis); eosinophilic myositis  
 CC and eosinophilic fasciitis; autoimmune diseases such as rheumatoid  
 CC arthritis, psoriatic arthritis, multiple sclerosis, systemic lupus  
 CC erythematosus, myasthenia gravis, juvenile onset diabetes,  
 CC glomerulonephritis, autoimmune thyroiditis and Behcet's disease;  
 CC graft rejection, including allograft rejection or graft-versus-host  
 CC disease; cancers with leukocyte infiltration of the skin or organs;  
 CC and also reperfusion injury, atherosclerosis, certain haematologic  
 CC malignancies, septic shock and endotoxic shock. Promoters of CKR-3  
 CC function can be used for treating: immunosuppression e.g. in AIDS  
 CC patients or individuals undergoing radiation therapy, chemotherapy,  
 CC therapy for autoimmune disease or other drug therapy, and  
 CC immunosuppression due to congenital deficiency in receptor function or  
 CC other causes; and infectious diseases such as parasitic diseases,  
 CC including helminth infections, such as nematodes (round worms).  
 CC The agents can also be used for detection and diagnosis.  
 XX  
 XX Sequence 1193 BP; 274 A; 310 C; 275 G; 334 T; 0 other;

Query Match 100.0%; Score 1065; DB 19; Length 1193;  
 Best Local Similarity 100.0%; Pred. No. 1.6e-313;  
 Matches 1065; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGACAACTCATAGATAGAGACCTTGGTACCAATCTACTATATGACG 60  
 DB 92 ATGACAACTCATAGATAGAGACCTTGGTACCAATCTACTATATGACG 151  
 QY 61 GGCCTGCTGTGAAAAAGCTGATACAGACACTGATGGCCAGTTGGCCCGCTG 120  
 DB 152 GGCCTGCTGTGAAAAAGCTGATACAGACACTGATGGCCAGTTGGCCCGCTG 211

QY 121 TACTCCCTGCTGCTGATGAGAGCCCTTGGGCAATGTGTGTGATGATCCCTATA 180  
 DB 212 TACTCCCTGCTGCTGATGAGAGCCCTTGGGCAATGTGTGTGATGATCCCTATA 271  
 QY 181 AATATACAGAGGCTCCGAATTATGACCAATCTACTGCTCAACCTGGCCATTTCGAC 240  
 DB 272 AATATACAGAGGCTCCGAATTATGACCAATCTACTGCTCAACCTGGCCATTTCGAC 331  
 QY 241 CTGCTCTTCCTGCTGATGAGAGCCCTTGGGCAATGTGTGTGATGATCCCTATA 300  
 DB 332 CTGCTCTTCCTGCTGATGAGAGCCCTTGGGCAATGTGTGTGATGATCCCTATA 391  
 QY 301 TTTGGCCATGAGATGTATGAGCTCTCTGAGGTTTATACACAGGCTTGTACAGCAG 360  
 DB 392 TTTGGCCATGAGATGTATGAGCTCTCTGAGGTTTATACACAGGCTTGTACAGCAG 451  
 QY 361 ATCTTTTATATATCTGTGTGACATTCGACAGGTACCTGGCCATTGTCTGTGTT 420  
 DB 452 ATCTTTTATATATCTGTGTGACATTCGACAGGTACCTGGCCATTGTCTGTGTT 511  
 QY 421 GGCCTGAGCCCGGACCTGCTCACTTTGGTGTATCACCAGCATGCTACCTGGGCGCTG 480  
 DB 512 GGCCTGAGCCCGGACCTGCTCACTTTGGTGTATCACCAGCATGCTACCTGGGCGCTG 571  
 QY 481 GCAGTGTACAGACCTCTCTGTAATTTATCTGTATGAGACTGAAGAGTTGTTGAAGAG 540  
 DB 572 GCAGTGTACAGACCTCTCTGTAATTTATCTGTATGAGACTGAAGAGTTGTTGAAGAG 631  
 QY 541 ACTCTTGTGAGGCTCTTATACCAAGAGATATAGCTGAGAGGATTTCCACACT 600  
 DB 632 ACTCTTGTGAGGCTCTTATACCAAGAGATATAGCTGAGAGGATTTCCACACT 691  
 QY 601 CTGAGATGACCATCTTCTGCTGCTTCCCTGCTGCTGCTGATGAGCATCTGTACACA 660  
 DB 692 CTGAGATGACCATCTTCTGCTGCTTCCCTGCTGCTGCTGATGAGCATCTGTACACA 751  
 QY 661 GGAATCATCAAAACGCTGCTGAGGTGCCCCAGTAAAAAAGTACAGGCAATCCGGCTC 720  
 DB 752 GGAATCATCAAAACGCTGCTGAGGTGCCCCAGTAAAAAAGTACAGGCAATCCGGCTC 811  
 QY 721 ATTTTGTATATAGGCGGTGTTTTCATTTCTGTGACACCTTACAAATGGCTATACCTT 780  
 DB 812 ATTTTGTATATAGGCGGTGTTTTCATTTCTGTGACACCTTACAAATGGCTATACCTT 871  
 QY 781 CTCTCTTCCATCAATCCATCTTATTTGGAATGACTGTGACGAGCAAGCATCTGAC 840  
 DB 872 CTCTCTTCCATCAATCCATCTTATTTGGAATGACTGTGACGAGCAAGCATCTGAC 931  
 QY 841 CTGTGATGCTGTGACAGAGGTGATGCTTACCTCCACTGCTGATGACACCGGTGATC 900  
 DB 932 CTGTGATGCTGTGACAGAGGTGATGCTTACCTCCACTGCTGATGACACCGGTGATC 991  
 QY 901 TACGCTTGTGGAAGAGGTTCGGAAGTACCTGCGGCACTTCTTCCAGAGGCACTTG 960  
 DB 992 TACGCTTGTGGAAGAGGTTCGGAAGTACCTGCGGCACTTCTTCCAGAGGCACTTG 1051  
 QY 961 CTGATGACCTGGGAGATATATCCATCTCTTCTGAGTGAAGCTGGAAGAACACGAC 1020  
 DB 1052 CTGATGACCTGGGAGATATATCCATCTCTTCTGAGTGAAGCTGGAAGAACACGAC 1111  
 QY 1021 TCTGTCTTCATCCACAGACAGCCGGAAGCTCTATTTGTGTTT 1065  
 DB 1112 TCTGTCTTCATCCACAGACAGCCGGAAGCTCTATTTGTGTTT 1156

RESULT 6  
 AAF21267  
 ID AAF21267 standard; DNA; 1201 BP.  
 XX  
 AC AAF21267;  
 XX  
 DT 14-MAR-2001 (first entry)  
 XX

DE Human low adenosine antisense oligonucleotide related sequence #2834.  
XX  
XX Low adenosine antisense oligonucleotide; phosphorothioate; allergy;  
KM human; airway disorder; bronchoconstriction; lung inflammation;  
KM surfactant depletion; antisthmatic; analgesic; hypotensive; cytoskeletal;  
KM immunosuppressive; antisthmatic; analgesic; hypotensive; cytoskeletal;  
KM surfactant obstruction; pulmonary obstruction; impeded respiration;  
KM surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;  
KM respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;  
KM pulmonary hypertension; emphysema; pulmonary transplantation rejection;  
KM chronic obstructive pulmonary disease; pulmonary infection; bronchitis;  
KM cancer; ss.  
XX  
XX Homo sapiens.  
XX  
XX MO200062736-A2.  
XX  
XX 26-OCT-2000.  
XX  
XX 24-MAR-2000; 2000WO-US08020.  
XX  
XX 06-APR-1999; 99US-0127958.  
XX  
XX (UYEC-) UNIV EAST CAROLINA.  
XX  
XX (NYCE/) NYCE J W.  
XX  
XX Nyce JW:  
XX  
XX WPI; 2000-679539/66.  
XX  
XX Low adenosine (A) content antisense oligonucleotides which do not  
PT trigger adenosine receptors during metabolism, useful e.g. for treating  
PT cancers and respiratory obstructions -  
XX  
XX  
XX Disclosure; Page 1182-1183; 1592pp; English.  
XX  
XX The present invention describes low adenosine (A) content antisense  
CC oligonucleotides and compositions (I) comprising them. In the antisense  
CC oligonucleotides the A is replaced by a 'universal' or alternative base.  
CC (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,  
CC immunosuppressive, antisthmatic, hypotensive and cytoskeletal activities.  
CC The antisense oligonucleotides and (I) can be used to down-regulate the  
CC expression and/or activity of target polypeptides associated with  
CC lung/respiratory disorders and malignancies, such as stimulating and  
CC activating peptide factors and transmitters, transcription factors,  
CC immunoglobulins and antibodies, antibody receptors, cytokines and  
CC chemokines, endogenously produced specific and non-specific enzymes,  
CC binding proteins, adhesion molecules and their receptors, cytokine and  
CC chemokine receptors, adenosine receptors, bradykinin receptors, central  
CC nervous system (CNS) and peripheral nervous and non-nervous system  
CC receptors, CNS and peripheral nervous and non-nervous system peptide  
CC transmitters, defensins, growth factors, vasactive peptides and  
CC receptors, binding proteins and malignancy associated proteins. The  
CC antisense oligonucleotides may be used in this way to treat disorders  
CC including respiratory obstruction (especially pulmonary artery obstruction  
CC and/or bronchoconstriction) and/or lung inflammation, allergy(ies)  
CC and/or surfactant hypoproduction which are associated with a disease or  
CC condition selected from pulmonary vasoconstriction, inflammation,  
CC allergies, asthma, impeded respiration, respiratory distress syndrome  
CC (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary  
CC hyperinflation, emphysema, chronic obstructive pulmonary disease (COPD),  
CC pulmonary transplantation rejection, pulmonary infections, bronchitis,  
CC and/or cancer. AAF18434 to AAF21543 represent human polynucleotide  
CC fragments and antisense oligonucleotides used in the exemplification of  
CC the present invention.  
XX  
XX  
XX Sequence 1201 BP; 278 A; 320 C; 267 G; 336 T; 0 other;  
SQ

Query Match 100.0%; Score 1065; DB 21; Length 1201;  
Best Local Similarity 100.0%; Pred. No. 1.7e-31;  
Matches 1065; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGACAACCTCAGTATACAGTTGAGACCTTTGGTACACATCTACTATGATGACGTG 60

|||||  
Db 32 ATGACAACCTCAGTATACAGTTGAGACCTTTGGTACACATCTACTATGATGACGTG 91  
QY 61 GCGCTGCTCTGTATAAAGCTGATACAGAGCAGTATGAGCCGACGTTGGCCCGCTG 120  
Db 92 GCGCTGCTCTGTATAAAGCTGATACAGAGCAGTATGAGCCGACGTTGGCCCGCTG 151  
QY 121 TACTCCGTGGTGTACCTGTGGGCTCTGGGCAATGTGGTGGTGGATGATCTCATTA 180  
Db 152 TACTCCGTGGTGTACCTGTGGGCTCTGGGCAATGTGGTGGTGGATGATCTCATTA 211  
QY 181 AAATACAGAGGCTCCGAATTTATGACCAATCTACCTGCTCAACCTGGCCATTTGGAC 240  
Db 212 AAATACAGAGGCTCCGAATTTATGACCAATCTACCTGCTCAACCTGGCCATTTGGAC 271  
QY 241 CTGCTCTCTCTGTCACCTTCCTTCATCTGATCCATATGTCAGGGGCAATTAAGTGT 300  
Db 272 CTGCTCTCTCTGTCACCTTCCTTCATCTGATCCATATGTCAGGGGCAATTAAGTGT 331  
QY 301 TTTGGCCATGGCATGTGTAGCTCTCTGAGGGTTTATCAGACAGGCTTTACAGGAG 360  
Db 332 TTTGGCCATGGCATGTGTAGCTCTCTGAGGGTTTATCAGACAGGCTTTACAGGAG 391  
QY 361 ATCTTTTTCATATCTGCTGACATTCGACAGAGTACCTGGCCATTGCTGCTGTTT 420  
Db 392 ATCTTTTTCATATCTGCTGACATTCGACAGAGTACCTGGCCATTGCTGCTGTTT 451  
QY 421 GCCCTTGAGCCCGGACCTGTCACTTTTGTGTCATCAGCAGATCGTACCTGGGCGCTG 480  
Db 452 GCCCTTGAGCCCGGACCTGTCACTTTTGTGTCATCAGCAGATCGTACCTGGGCGCTG 511  
QY 481 GCAGTCTACAGCTCTCTCTGAAATTTATCTATGAGCTGAAGAAGTGTGTAAGAG 540  
Db 512 GCAGTCTACAGCTCTCTCTGAAATTTATCTATGAGCTGAAGAAGTGTGTAAGAG 571  
QY 541 ACTCTTTGACGCTCTCTTACCCAGAGAGATATATAGCTGAGAGCATTTCCACACT 600  
Db 572 ACTCTTTGACGCTCTCTTACCCAGAGAGATATATAGCTGAGAGCATTTCCACACT 631  
QY 601 CTGAGATGACCATCA 660  
Db 632 CTGAGATGACCATCA 691  
QY 661 GGAATATCAAAAGCGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT 720  
Db 692 GGAATATCAAAAGCGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGTGGT 751  
QY 721 ATTTTGTCTATCTGCGGCTTTTCTGACACCTTACATATGCTATCTCTT 780  
Db 752 ATTTTGTCTATCTGCGGCTTTTCTGACACCTTACATATGCTATCTCTT 811  
QY 781 CTCTCTCTCTATCTATCTATCTATCTATCTATCTATCTATCTATCTATCTATCT 840  
Db 812 CTCTCTCTCTATCTATCTATCTATCTATCTATCTATCTATCTATCTATCTATCT 871  
QY 841 CTGCTATGCTGTGACAGAGGTGATGCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 900  
Db 872 CTGCTATGCTGTGACAGAGGTGATGCTCTCTCTCTCTCTCTCTCTCTCTCTCTCT 931  
QY 901 TAGCCCTTTGTTGAGAGAGTTCGGAAGTACCTGCGCCTCTCTCTCTCTCTCTCTCT 960  
Db 932 TAGCCCTTTGTTGAGAGAGTTCGGAAGTACCTGCGCCTCTCTCTCTCTCTCTCTCT 991  
QY 961 CTGATGACCTGGGCAAGATATCAATCCATCTCTCTCTCTCTCTCTCTCTCTCTCTCT 1020  
Db 992 CTGATGACCTGGGCAAGATATCAATCCATCTCTCTCTCTCTCTCTCTCTCTCTCTCT 1051  
QY 1021 TCTGCTCTCTCATCCACAGAGAGCGGAAGCTCTATTTGTTT 1065  
Db 1052 TCTGCTCTCTCATCCACAGAGAGCGGAAGCTCTATTTGTTT 1096

RESULT 7







RESULT 8  
ABK84282  
ID ABR84282 standard: cDNA; 1201 BP.  
XX  
AC ABR84282;  
XX  
XX 14-AUG-2002 (first entry)  
XX  
DE Human cDNA differentially expressed in granulocytic cells #853.  
XX  
XX Human; ss; granulocytic cell; DNA chip; bacterial infection;  
KM viral infection; parasitic infection; protozoal infection;  
KM fungal infection; sterile inflammatory disease; psoriasis;  
KM rheumatoid arthritis; glomerulonephritis; asthma; thrombosis;  
KM cardiac reperfusion injury; renal reperfusion injury; ARDS;  
KM adult respiratory distress syndrome; inflammatory bowel disease;  
KM Crohn's disease; ulcerative colitis; periodontal disease;  
KM granulocyte activation; chronic inflammation; allergy.  
XX  
OS Homo sapiens.  
XX  
PN W0200228999-A2.  
XX  
PD 11-APR-2002.  
XX  
XX 03-OCT-2001; 2001WO-US30821.  
XX  
XX 03-OCT-2000; 2000US-237189P.  
XX  
XX (GENE-) GENE LOGIC INC.  
XX  
PI Beazer-Barclay Y, Weissman SM, Yamaga S, Vockley J;  
XX  
XX WPI: 2002-435328/46.  
XX  
XX  
XX Detecting granulocyte activation by detecting differential expression  
PT of genes associated with granulocyte activation, which serves as  
PT diagnostic markers that is useful for monitoring disease states and  
PT drug toxicity -  
XX  
XX  
PS Claim 1: SEQ ID No 853; 114pp: English.  
XX  
XX The invention relates to detecting (M1) granulocyte (GC) activation  
CC (GCA), by detecting the level of expression of gene(s) (Gs) identified by  
CC DNA chip analysis as given in the specification, and comparing  
CC the expression level to an expression level in an unactivated  
CC GC, where differential expression of Gs is indicative of GCA.  
CC Also included are modulating (M2) Gs by contacting GC with an agent  
CC that alters the expression of at least one gene in Gs; (2) screening (M3)  
CC for an agent capable of modulating GCA or an inflammation (especially  
CC chronic) in a tissue, an allergic response in a subject, exposure of a  
CC subject to a pathogen or sterile inflammatory disease using the  
CC gene expression profile; (3) detecting (M4) an inflammation (especially  
CC chronic) in a tissue, an allergic response in a subject, exposure of a  
CC subject to a pathogen or sterile inflammatory disease, by detecting the  
CC level of expression in a sample of the tissue of gene(s) from Gs, where  
CC the level of expression of the gene is indicative of inflammation;  
CC (4) treating (M5) an inflammation (especially chronic) or in a tissue,  
CC an allergic response in a subject, exposure of a subject to a pathogen  
CC or sterile inflammatory disease, by contacting a tissue having  
CC inflammation with an agent that modulates the expression of gene(s)  
CC from Gs in the tissue. M1 is useful for detecting GCA; M2 is useful for  
CC modulating Gs; M3 is useful for screening an agent capable of modulating  
CC GCA preferably in an inflammation in a tissue; M4 is useful for  
CC detecting an inflammation (especially chronic) in a tissue, an allergic  
CC response in a subject, exposure of a subject to a pathogen or sterile  
CC inflammatory disease (e.g., psoriasis, rheumatoid arthritis,  
CC glomerulonephritis, asthma, thrombosis, cardiac reperfusion injury, renal  
CC reperfusion injury, ARDS, adult respiratory distress syndrome,  
CC inflammatory bowel disease, Crohn's disease, ulcerative colitis,  
CC periodontal disease; also bacterial infection, viral infection,  
CC parasitic infection, protozoal infection, fungal infection and M5 is  
CC useful for treating one of the above conditions. The present

CC sequence represents a gene differentially expressed in granulocytes.  
CC Note: The sequence data for this patent did not form part  
CC of the printed specification, but was obtained in electronic  
CC format directly from WIPO at  
CC ftp.wipo.int/pub/published\_pcl\_sequences.  
XX  
XX  
SQ Sequence 1201 BP; 278 A; 320 C; 267 G; 336 T; 0 other;  
Query Match 100.0%; Score 1065; DB 24; Length 1201;  
Best Local Similarity 100.0%; Pred. No. 1.7e-33;  
Matches 1065; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
1 ANGACACCTCTCAGTATGATGAGTGGACCTTGGACACATCCCTATGATGACG 60  
DB ATGACACCTCTCAGTATGATGAGTGGACCTTGGACACATCCCTATGATGACG 91  
OY 61 GGCCTGCTGTGAAAAAAGCTGATACAGAGCAGTGGCCAGTTTGGCCCGCTG 120  
DB 92 GGCCTGCTGTGAAAAAAGCTGATACAGAGCAGTGGCCAGTTTGGCCCGCTG 151  
OY 121 TACTCCCTGCTGTACCTGCTGGGCTCTTGGGCAATGCTGGTATGATCCATCA 180  
DB 152 TACTCCCTGCTGTACCTGCTGGGCTCTTGGGCAATGCTGGTATGATCCATCA 211  
OY 181 AATACAGAGGCTCCGAAATATGACCAACATCTACCTGCTCAACTGGCCATTTCGAC 240  
DB 212 AATACAGAGGCTCCGAAATATGACCAACATCTACCTGCTCAACTGGCCATTTCGAC 271  
OY 241 CTGCTCTTCTGTCACCTTCCATTTCTGATTCACATATGTCAGGGGCAATACGCTG 300  
DB 272 CTGCTCTTCTGTCACCTTCCATTTCTGATTCACATATGTCAGGGGCAATACGCTG 331  
OY 301 TTTGGCCATGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 360  
DB 332 TTTGGCCATGAGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 391  
OY 361 ATCTTTTATATATCTGCTGACATGACAGATGACAGTGGCCATGCTGCTGTTT 420  
DB 392 ATCTTTTATATATCTGCTGACATGACAGATGACAGTGGCCATGCTGCTGTTT 451  
OY 421 GCCCTTGCAGCCGGAGCTGCTACCTTTTGGTGTATACACAGATCTGACCTGAGGCTG 480  
DB 452 GCCCTTGCAGCCGGAGCTGCTACCTTTTGGTGTATACACAGATCTGACCTGAGGCTG 511  
OY 481 GGAGTCTGAGAGCTTCTCTGATTTATCTGATGACATGAAAGTGTGTAAGAG 540  
DB 512 GGAGTCTGAGAGCTTCTCTGATTTATCTGATGACATGAAAGTGTGTAAGAG 571  
OY 541 ACTCTTGGAGTCTCTTACCCAGAGATGATGATGATGATGATGATGATGATGATGAT 600  
DB 572 ACTCTTGGAGTCTCTTACCCAGAGATGATGATGATGATGATGATGATGATGATGAT 631  
OY 601 CTGAGATGACATCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 660  
DB 632 CTGAGATGACATCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 691  
OY 661 GGATATGAAAAAGCTGCTGAGGTCCTCCAGTAAAAAAGTACAAAGCCATCCGGCTC 720  
DB 692 GGATATGAAAAAGCTGCTGAGGTCCTCCAGTAAAAAAGTACAAAGCCATCCGGCTC 751  
OY 721 ATTTTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 780  
DB 752 ATTTTGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 811  
OY 781 CTCTCTCTATCAATCCATTTATTTGGAATGATGATGATGATGATGATGATGATGAT 840  
DB 812 CTCTCTCTATCAATCCATTTATTTGGAATGATGATGATGATGATGATGATGATGAT 871  
OY 841 CTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 900  
DB 872 CTGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGATGAT 931  
OY 901 TACGCTTTTGTGAGAGAGTTCCGGAAGTACTGCGCCACTTCTTCCACAGGCACTTG 960

|||||  
Db 932 TAGCCTTTGTTGGAGAGAGTCCGAACTACCTGGCCACTTCTCCACAGCACTTG 991  
Qy 961 CTCATGCACCTGGGAGATCATCCATCTCTCTAGTAGAGAGCTGGAACACACAGC 1020  
Db 992 CTCATGCACCTGGGAGATCATCCATCTCTCTAGTAGAGAGCTGGAACACACAGC 1051  
Qy 1021 TCTGCTCTTCATCCACAGAGAGCCGAACCTCTATTGTGTTT 1065  
Db 1052 TCTGCTCTTCATCCACAGAGAGCCGAACCTCTATTGTGTTT 1096  
RESULT 9  
ABL67066  
ID ABL67066 standard; DNA; 1717 BP.  
XX  
AC ABL67066;  
XX  
DT 15-MAY-2002 (first entry)  
XX  
DE Thyroid cancer related gene sequence SEQ ID NO:5403.  
XX  
KW Human; cancer; colon; breast; ovary; oesophagus; kidney; thyroid;  
KW stomach; lung; prostate; pancreas; carcinoma; antitumour; cancerous;  
KW cytosolic; gene therapy; antineoplastic; Wilm's tumour; adenocarcinoma;  
KW gene; ds.  
XX  
OS Homo sapiens.  
XX  
PN WO200194629-A2.  
XX  
PD 13-DEC-2001.  
XX  
PF 30-MAY-2001; 2001WO-US10838.  
XX  
PR 05-JUN-2000; 2000US-209473P.  
PR 05-JUN-2000; 2000US-209511P.  
PR 18-SEP-2000; 2000US-233133P.  
PR 18-SEP-2000; 2000US-233617P.  
PR 20-SEP-2000; 2000US-234009P.  
PR 20-SEP-2000; 2000US-234034P.  
PR 20-SEP-2000; 2000US-234052P.  
PR 22-SEP-2000; 2000US-234509P.  
PR 22-SEP-2000; 2000US-234567P.  
PR 25-SEP-2000; 2000US-234923P.  
PR 25-SEP-2000; 2000US-234924P.  
PR 25-SEP-2000; 2000US-235077P.  
PR 25-SEP-2000; 2000US-235082P.  
PR 25-SEP-2000; 2000US-235134P.  
PR 25-SEP-2000; 2000US-235280P.  
PR 26-SEP-2000; 2000US-235637P.  
PR 26-SEP-2000; 2000US-235638P.  
PR 27-SEP-2000; 2000US-235711P.  
PR 27-SEP-2000; 2000US-235720P.  
PR 27-SEP-2000; 2000US-235840P.  
PR 27-SEP-2000; 2000US-235863P.  
PR 28-SEP-2000; 2000US-236028P.  
PR 28-SEP-2000; 2000US-236032P.  
PR 28-SEP-2000; 2000US-236033P.  
PR 28-SEP-2000; 2000US-236034P.  
PR 28-SEP-2000; 2000US-236109P.  
PR 28-SEP-2000; 2000US-236111P.  
PR 29-SEP-2000; 2000US-236842P.  
PR 29-SEP-2000; 2000US-236891P.  
PR 02-OCT-2000; 2000US-237172P.  
PR 02-OCT-2000; 2000US-237173P.  
PR 02-OCT-2000; 2000US-237278P.  
PR 02-OCT-2000; 2000US-237294P.  
PR 02-OCT-2000; 2000US-237295P.  
PR 02-OCT-2000; 2000US-237316P.  
PR 03-OCT-2000; 2000US-237425P.  
PR 03-OCT-2000; 2000US-237598P.  
PR 03-OCT-2000; 2000US-237604P.

PR 03-OCT-2000; 2000US-237606P.  
PR 03-OCT-2000; 2000US-237608P.  
PR 01-NOV-2000; 2000US-244867P.  
PR 01-NOV-2000; 2000US-245084P.  
XX  
PA (AVAL-) AVALON PHARM.  
XX  
PI Young PE, Augustus M, Carter KC, Ebner R, Endress G, Horrigan S;  
PI Soppet DR, Weaver Z;  
XX  
DR WPI; 2002-188264/24.  
XX  
PT Screening for anti-neoplastic agent involves exposing cells to a  
PT chemical agent to be tested for anti-neoplastic activity, and  
PT determining a change in expression of a gene of a signature gene set -  
XX  
PS Claim 1; SEQ ID 5403; 44pp; English.  
XX  
CC The present invention describes a method (M1) for screening for an  
CC anti-neoplastic agent. The method involves exposing cells to a chemical  
CC agent to be tested for anti-neoplastic activity, determining a change in  
CC expression of at least one gene (I) of a signature gene set, where (I)  
CC comprises a sequence (S) selected from 8447 sequences (given in ABL61664  
CC to ABL70110), or is at least 95% identical to (S), where a change in  
CC expression is indicative of anti-neoplastic activity. (I) has cytosolic  
CC activity and can be used in gene therapy. M1 can be used for screening  
CC an anti-neoplastic agent, and can be used for producing a product which  
CC is the data collected with respect to the anti-neoplastic agent as a  
CC result of M1, and the data is sufficient to convey the chemical  
CC structure and/or properties of the agent. M1 can be used in the  
CC treatment of cancer such as colon, breast, stomach, lung, thyroid,  
CC oesophageal, ovarian, kidney, prostate or pancreatic cancer.  
CC adenocarcinoma, carcinoma, clear cell cancer, infiltrating ductal cancer,  
CC infiltrating lobular cancer, squamous cell carcinoma, neuroendocrine  
CC carcinoma, papillary carcinoma and Wilm's tumour.  
XX  
SQ Sequence 1717 BP; 434 A; 428 C; 351 G; 504 T; 0 other;  
Query Match 100.0%; Score 1065; DB 24; Length 1717;  
Best Local Similarity 100.0%; Pred. No. 2e-313;  
Matches 1065; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 ATGACACCTCCTAGATACAGTGTGAGACCTTGTGATACACATCTACTATGATGACGTG 60  
Db 205 ATGACAACTCCTAGATACAGTGTGAGACCTTGTGATACACATCTACTATGATGACGTG 264  
Qy 61 GGCCTGCTGTGTAAGAGCTGATACAGACGCTATGGCCAGTTTGGCCCCGCTG 120  
Db 265 GGCCTGCTGTGTAAGAGCTGATACAGACGCTATGGCCAGTTTGGCCCCGCTG 324  
Qy 121 TACTCCCTGCTTCACTGTGGGCTCTTGGGCAATGTGGTGGTGTGATGATCCATTA 180  
Db 325 TACTCCCTGCTTCACTGTGGGCTCTTGGGCAATGTGGTGGTGTGATGATCCATTA 384  
Qy 181 AAATACAGAGGCTCCGAATTTATGACCAACATCTACTGCTCAACCTGGCCATTTGGCAG 240  
Db 385 AAATACAGAGGCTCCGAATTTATGACCAACATCTACTGCTCAACCTGGCCATTTGGCAG 444  
Qy 241 CTGCTCTTCTGCTCAACCTTCCATTTGGATGATCCTATGTCAGGGGGCAATTAAGTGG 300  
Db 445 CTGCTCTTCTGCTCAACCTTCCATTTGGATGATCCTATGTCAGGGGGCAATTAAGTGG 504  
Qy 301 TTGAGCATGAGCATGTGTAGCTCTCTAGAGTTTATACACAGAGCTTGTACAGCAG 360  
Db 505 TTGAGCATGAGCATGTGTAGCTCTCTAGAGTTTATACACAGAGCTTGTACAGCAG 564  
Qy 361 ATCTTTTTCATATCTGCTGACATGACAGTACTGGCCATTTGCCATGCTGTGTTT 420  
Db 565 ATCTTTTTCATATCTGCTGACATGACAGTACTGGCCATTTGCCATGCTGTGTTT 624  
Qy 421 GCCCTTGAGCCCGGACGTGTCACTTTTGTGTATCACCAGCATGCTCACTGGGGCCTG 480  
Db 625 GCCCTTGAGCCCGGACGTGTCACTTTTGTGTATCACCAGCATGCTCACTGGGGCCTG 684

OY 481 GCAGTGTAGACAGCTCTTCCGAATTTATCTTATAGACTGAAGAGTTGTTGAAGAG 540  
DB 685 GCAGTGTAGACAGCTCTTCCGAATTTATCTTATAGACTGAAGAGTTGTTGAAGAG 744  
OY 541 ACCTTTTGAGAGTCTTTTACCAGAGATACATATAGTGGAGGATTTTCCACACT 600  
DB 745 ACTCTTTTGAGAGTCTTTTACCAGAGATACATATAGTGGAGGATTTTCCACACT 804  
OY 601 CTGAGAAATACCATCTTCTGTCTCTTCCCTCTGCTGCTTATGGCCATCTGTACACA 660  
DB 805 CTGAGAAATACCATCTTCTGTCTCTTCCCTCTGCTGCTTATGGCCATCTGTACACA 864  
OY 661 GGAATCATCAAAAACGCTGCTGAGTGCCCGAGTAAAAAAAGTACAAGCCATCCGGCTC 720  
DB 865 GGAATCATCAAAAACGCTGCTGAGTGCCCGAGTAAAAAAAGTACAAGCCATCCGGCTC 924  
OY 721 AATTTTGTATCATGAGCGGCTGTTTTCATTTTCTGAGACACCTTACATGTGGCTATCCTT 780  
DB 925 AATTTTGTATCATGAGCGGCTGTTTTCATTTTCTGAGACACCTTACATGTGGCTATCCTT 984  
OY 781 CTCTCTTCTATCAATCCATCTTATTTGGAATGATGTGAGCGGAGCAAGCATCTGGAC 840  
DB 985 CTCTCTTCTATCAATCCATCTTATTTGGAATGATGTGAGCGGAGCAAGCATCTGGAC 1044  
OY 841 CTGTCATCTGCTGACAGAGTGATCGCTTACTCCACTGCTGATGAACCCGGTGATC 900  
DB 1045 CTGTCATCTGCTGACAGAGTGATCGCTTACTCCACTGCTGATGAACCCGGTGATC 1104  
OY 901 TACGCTTTTGTGAGAGAGTTCCGGAAGTACCTGCGCCACTTCTTCCACAGGCACTTG 960  
DB 1105 TACGCTTTTGTGAGAGAGTTCCGGAAGTACCTGCGCCACTTCTTCCACAGGCACTTG 1164  
OY 961 CTCATGACCTGCGGAGATACATCCATCTTCTTACAGAGAGTGGAAAGAACCCAGC 1020  
DB 1165 CTCATGACCTGCGGAGATACATCCATCTTCTTACAGAGAGTGGAAAGAACCCAGC 1224  
OY 1021 TCTGTCTCTCATCCACAGACGCGGAACTCTATTTGTGTTT 1065  
DB 1225 TCTGTCTCTCATCCACAGACGCGGAACTCTATTTGTGTTT 1269  
RESULT 10  
AAD25221  
ID AAD25221 standard; DNA; 1717 BP.  
XX  
AC AAD25221:  
XX  
DT 12-MAR-2002 (first entry)  
XX  
DE Human chemokine (C-C motif) receptor 3 (CCR3) gene #1.  
XX  
XX Human; chemokine (C-C motif) receptor 3; CCR3 gene; haplotyping;  
KW genotyping; type IV hypersensitivity reaction; HIV-1; gene therapy;  
KW human immunodeficiency virus 1; single nucleotide polymorphism; SNP;  
chromosome 3p21.3; ds.  
XX  
OS Homo sapiens.  
XX  
FH key Location/Qualifiers  
FT variation replace (92, 7)  
FT /tag= a  
FT /standard\_name= "Single nucleotide polymorphism (SNP)"  
FT variation replace (197, A)  
FT /tag= b  
FT /standard\_name= "Single nucleotide polymorphism (SNP)"  
FT CDS 205..1272  
FT /tag= c  
FT /product= "Human CCR3 protein"  
FT /note= "this region corresponds to exon 1"  
FT variation replace (255, C)  
FT /tag= d  
FT /standard\_name= "Single nucleotide polymorphism (SNP)"

FT variation replace (1256, C)  
FT /tag= e  
FT /standard\_name= "Single nucleotide polymorphism (SNP)"  
PN WO200187908-A2.  
XX 22-NOV-2001.  
XX 18-MAY-2001; 2001WO-US16278.  
XX 18-MAY-2000; 2000US-205191P.  
XX (GENA-) GENAISSANCE PHARM INC.  
XX Choi JY, Kazemi A, Koshy B;  
XX WPI: 2002-055681/07.  
XX P-PSDB: AAE15320.  
DR Isolated polymorphic variants of chemokine (C-C motif) receptor 3  
PT (CCR3) gene useful for studying function of CCR3, expressing the CCR3  
PT protein and to screen drugs to treat CCR3 activity-related diseases -  
XX Example 1; Fig 1; 53pp; English.  
XX  
XX The invention relates to genetic variants of human chemokine (C-C motif)  
XX receptor 3 (CCR3) gene. The invention also relates to compositions and  
XX methods for haplotyping and/or genotyping the CCR3 gene in an individual.  
XX Polynucleotides of the invention are useful for studying the expression  
XX and function of CCR3 and in expressing CCR3 proteins for use in screening  
XX candidate drugs to treat diseases related to CCR3 activity. They are also  
XX used in gene therapy. The polymorphism and haplotype data is useful for  
XX validating whether CCR3 is a suitable target for drugs to treat type IV  
XX hypersensitivity reactions and human immunodeficiency virus (HIV)-1,  
XX screening for such drugs and reducing bias cells in clinical trials of  
XX such drugs. The genotyping method is useful for determining whether an  
XX individual has one haplotype or haplotype pairs. The haplotyping method  
XX is useful for improving the efficiency and outcome of several steps in  
XX the discovery and development of drugs for treating diseases associated  
XX with CCR3 activity such as type IV hypersensitivity reactions and HIV-1.  
XX The present sequence is human CCR3 gene located on chromosome 3p21.3.  
XX  
SQ Sequence 1717 BP; 434 A; 428 C; 351 G; 504 T; 0 other;  
Query Match 100.0%; Score 1065; DB 24; Length 1717;  
Best Local Similarity 100.0%; Pred. No. 2e-313;  
Matches 1065; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
OY 1 ATGACAACTCACTAGATACAGTTGAGACCTTGGTACACATCCTACTATGATGACGTG 60  
DB 205 ATGACAACTCACTAGATACAGTTGAGACCTTGGTACACATCCTACTATGATGACGTG 264  
OY 61 GGCTCTCTGTGAAAAAGCTGATACAGACGACGATGAGGCCAGTTTGCCCGCGTG 120  
DB 265 GGCTCTCTGTGAAAAAGCTGATACAGACGACGATGAGGCCAGTTTGCCCGCGTG 324  
OY 121 TACTCCCTGCTGCTCACTGCGGCTTGGGCAATGCTGCTGATGATCCCTCATA 180  
DB 325 TACTCCCTGCTGCTCACTGCGGCTTGGGCAATGCTGCTGATGATCCCTCATA 384  
OY 181 AATACAGAGAGCTCGAATTTATGACCAACATCTACTCTCAACTGAGCCATTTGGAGC 240  
DB 385 AATACAGAGAGCTCGAATTTATGACCAACATCTACTCTCAACTGAGCCATTTGGAGC 444  
OY 241 CTGCTCTTCTGTCACCTTCCATTTCTGATCCACTATGTCAGGGGCAATGCTGGTT 300  
DB 445 CTGCTCTTCTGTCACCTTCCATTTCTGATCCACTATGTCAGGGGCAATGCTGGTT 504  
OY 301 TTGGCCATGAGATGATGATGCTCTCTGAGGTTTATACACAGGCTTGTACAGCAG 360  
DB 505 TTGGCCATGAGATGATGATGCTCTCTGAGGTTTATACACAGGCTTGTGTACAGCAG 564  
OY 361 AACTTTTATATATCTGCTGACAAATGACAGGTACTGGCAATGTCCATGCTGTGTTT 420

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Db 565 ATCTTTTATATATCCGTGACAAATCGACAGGTACCTGGCCATTGCTCCATGCTGTGTT 624
OY 421 GCCCTTCGAGCCCGGAGCTGTCACCTTTGGTGCATCACAGACATGCTACCGTGGCCCTG 480
Db 625 GCCCTTCGAGCCCGGAGCTGTCACCTTTGGTGCATCACAGACATGCTACCGTGGCCCTG 684
OY 481 GCAGTGTAGCAGACCTTCCTGTAATTTATCTTATAGACTGAAGAGTTGTTGAAGAG 540
Db 685 GCAGTGTAGCAGACCTTCCTGTAATTTATCTTATAGACTGAAGAGTTGTTGAAGAG 744
OY 541 ACTCTTTGCAAGTGTCTTTTACCAGAGATPACAGTATATAGCTGAGGCAATTTCCACACT 600
Db 745 ACTCTTTGCAAGTGTCTTTTACCAGAGATPACAGTATATAGCTGAGGCAATTTCCACACT 804
OY 601 CTGAGAAATGACCATCTTTCGTCTCGTTTCCCTCCCTGCTGTTATGGCCATTCCTACACA 660
Db 805 CTGAGAAATGACCATCTTTCGTCTCGTTTCCCTCCCTGCTGTTATGGCCATTCCTACACA 864
OY 661 GGAATCATCAAAAACGCTGCTGAGGTGCCCCAGTAAAAAAAGTACAAGCCATCCGGCTC 720
Db 865 GGAATCATCAAAAACGCTGCTGAGGTGCCCCAGTAAAAAAAGTACAAGCCATCCGGCTC 924
OY 721 ATTTTGTGATCATGCGCGGTGTTTTCATTTCCTGAGACACCTTACATGTCCTATCCTT 780
Db 925 ATTTTGTGATCATGCGCGGTGTTTTCATTTCCTGAGACACCTTACATGTCCTATCCTT 984
OY 781 CTTCTTCTTCATCAATCCATCTTATTTGGAAATGACTGAGGCGGAGCAAGCATCTGAGAC 840
Db 985 CTCTCTTCTTCATCAATCCATCTTATTTGGAAATGACTGAGGCGGAGCAAGCATCTGAGAC 1044
OY 841 CTGTCATCATGCTGCTGAGACAGAGGTGATCGCTACTCCACTGCTGATGAACCCGGTGATC 900
Db 1045 CTGTCATCATGCTGCTGAGACAGAGGTGATCGCTACTCCACTGCTGATGAACCCGGTGATC 1104
OY 901 TACGCTTTGTTGGAGAGAGGTTCCGGAAGTACCTGCGCCACTTCTTCCACAGGCACTTG 960
Db 1105 TACGCTTTGTTGGAGAGAGGTTCCGGAAGTACCTGCGCCACTTCTTCCACAGGCACTTG 1164
OY 961 CTCATGCACCTGGGCGAGATACATCCCATCTTCCTAGTGAAGAGCTGGAAGAACACAG 1020
Db 1165 CTCATGCACCTGGGCGAGATACATCCCATCTTCTTCTAGTGAAGAGCTGGAAGAACACAG 1224
OY 1021 TCTGTCTCTCATCCACAGACAGCGGAAGCTCTATTTGTGTTT 1065
Db 1225 TCTGTCTCTCATCCACAGACAGCGGAAGCTCTATTTGTGTTT 1269

RESULT 11
AAT85162
ID AAT85162 standard; cDNA; 1915 BP.
XX
AC AAT85162;
XX
DT 14-DEC-1997 (first entry)
XX
DE Human chemokine receptor 88-2B cDNA.
XX
KW Chemokine receptor 88-2B; atherosclerosis; rheumatoid arthritis;
KW tumour; asthma; viral infection; AIDS; inflammation;
KW autoimmune disease; therapy; diagnosis; leukocyte trafficking;
KW G protein coupled receptor; human; ss.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT CDS 362..1429
FT /tag= a
PN WO9722698-A2.
XX
PD 26-JUN-1997.
XX
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```
PF 20-DEC-1996; 96WO-US20759.
XX
PR 07-JUN-1996; 96US-0661393.
PR 20-DEC-1995; 95US-0575967.
XX
PA (ICOS-) ICOS CORP.
XX
PI Gray PW, Raport CJ, Schweickart VL;
XX
DR MPI: 1997-341689/31.
DR P-PSDB: AAM27124.
XX
PT New nucleic acid encoding chemokine receptors 88-2B and 88C - used
PT to modulate leukocyte trafficking, e.g. for treatment of
PT inflammation, tumours, viral infections, autoimmune diseases, etc.
XX
PS Claim 7; Page 48-50; 65pp; English.
XX
CC This sequence comprises a full-length cDNA coding for novel human
CC chemokine receptor 88-2B (AAM27124), a G protein coupled receptor that
CC is involved in leukocyte trafficking. The 88-2B cDNA was obtained
CC from a macrophage cDNA library using 88-2B-specific primers. A
CC full-length clone (see AAT85162) for chemokine receptor 88C (AAM27123)
CC was also obtained. 88C and 88-2B cDNAs can be used to produce
CC recombinant polypeptides in transformed host cells for use in the
CC treatment of e.g. atherosclerosis, rheumatoid arthritis, tumours,
CC asthma, viral infection, AIDS and inflammatory conditions. Nucleic
CC acid fragments can be used to isolate genomic sequences, to detect
CC alleles of the gene (for diagnosis or in gene therapy), to alter
CC receptor genetics to facilitate identification of modulators and to
CC produce knockout animals, and (antisense forms) to alter/study the
CC genetics and expression of the receptor.
SQ Sequence 1915 BP; 488 A; 470 C; 373 G; 584 T; 0 other;

Query Match 100.0%; Score 1065; DB 18; Length 1915;
Best Local Similarity 100.0%; Pred. No. 2.1e-313;
Matches 1065; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 ATGACAACTGTCATGATACAGTTGAGACCTTGGTACCAATCTCATATATGATGACGTG 60
Db 362 ATGACAACTGTCATGATACAGTTGAGACCTTGGTACCAATCTCATATATGATGACGTG 421
OY 61 GGCCTGCTGTGAAAAACCTGATACAGACACTGATGGCCAGTTTGGCCCCGCTG 120
Db 422 GGCCTGCTGTGAAAAACCTGATACAGACACTGATGGCCAGTTTGGCCCCGCTG 481
OY 121 TACTCCCTGGTTCACGTGTGGGCTCTTGGCAATGTGTGTGTGATATCTCATATA 180
Db 482 TACTCCCTGGTTCACGTGTGGGCTCTTGGCAATGTGTGTGTGATATCTCATATA 541
OY 181 AATATACAGAGGCTCGAATTTATGACCAACATCTACCTGCAACCTGGCCATTTGCGAGC 240
Db 542 AATATACAGAGGCTCGAATTTATGACCAACATCTACCTGCAACCTGGCCATTTGCGAGC 601
OY 241 CTGCTCTTCTGTCACCTTCATCTTGATTCAGATGATGTCAGGGGGCATTAATGAGTT 300
Db 602 CTGCTCTTCTGTCACCTTCATCTTGATTCAGATGATGTCAGGGGGCATTAATGAGTT 661
OY 301 TTTGGCATTGCAATGTGTAGTCTCTCTAGAGGTTTATATACACAGGCTTGTACAGCAG 360
Db 662 TTTGGCATTGCAATGTGTAGTCTCTCTAGAGGTTTATATACACAGGCTTGTACAGCAG 721
OY 361 ATCTTTTATATATCCGTGACAAATCGACAGGTACCTGGCCATTGCTCATGCTGTGTT 420
Db 722 ATCTTTTATATATCCGTGACAAATCGACAGGTACCTGGCCATTGCTCATGCTGTGTT 781
OY 421 GCCCTTCGAGCCCGGAGCTGTCACCTTTGGTGCATCACAGACATGCTACCTGGGGCCTG 480
Db 782 GCCCTTCGAGCCCGGAGCTGTCACCTTTGGTGCATCACAGACATGCTACCTGGGGCCTG 841
OY 481 GCAGTGTAGCAGACCTTCCTGTAATTTATCTTATAGACTGAAGAGTTGTTGAAGAG 540
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Db 842 GCAGTGTAGACGCTCTTCGTAATTTATCTTATAGAGACTGAAGAGTTGTTGAAGAC 901  
Qy 541 ACTCTTTGACAGTCTCTTTTACCAGAGATACAGTATAGCTGGAGCATTTCCACACT 600  
Db 902 ACTCTTTGACAGTCTCTTTTACCAGAGATACAGTATAGCTGGAGCATTTCCACACT 961  
Qy 601 CTGAGAAATGACCATTTCTGTCGCTTCCCTGCTGCTGTTATGGCCATCTGTACACA 660  
Db 962 CTGAGAAATGACCATTTCTGTCGCTTCCCTGCTGCTGTTATGGCCATCTGTACACA 1021  
Qy 661 GGAATCATCAAAAGCGCTGAGTGCCCGCCAGTAAAGGATACAGGCCATCCGGCTC 720  
Db 1022 GGAATCATCAAAAGCGCTGAGTGCCCGCCAGTAAAGGATACAGGCCATCCGGCTC 1081  
Qy 721 ATTTTGTATCATGAGCGGTGTTTTCATTTTCTGAGACACCTACATGTGGCTATCCTT 780  
Db 1082 ATTTTGTATCATGAGCGGTGTTTTCATTTTCTGAGACACCTACATGTGGCTATCCTT 1141  
Qy 781 CTCTCTTCTATCATTCATCTTATTTGGAAATGACTGTGACGGAGCAGCATCTGGAC 840  
Db 1142 CTCTCTTCTATCATTCATCTTATTTGGAAATGACTGTGACGGAGCAGCATCTGGAC 1201  
Qy 841 CTGTCTAGTGTGACAGAGGTGATGCTTCCCTGCTGCTGATGAGACCCGGTGTATC 900  
Db 1202 CTGTCTAGTGTGACAGAGGTGATGCTTCCCTGCTGCTGATGAGACCCGGTGTATC 1261  
Qy 901 TACGCGCTTTGTTGAGAGAGGTTCCGGAAGTACTGCGCCACTTCTCCACAGGCACTTG 960  
Db 1262 TACGCGCTTTGTTGAGAGAGGTTCCGGAAGTACTGCGCCACTTCTCCACAGGCACTTG 1321  
Qy 961 CTGATGACCTGTGGAGATATCTCCATTTCTCTAGTGAAGACTGGAAAGAACCAAGC 1020  
Db 1322 CTGATGACCTGTGGAGATATCTCCATTTCTCTAGTGAAGACTGGAAAGAACCAAGC 1381  
Qy 1021 TCTGTCTCTCCATCCACAGACAGCGGGAACCTCTATTTGTTT 1065  
Db 1382 TCTGTCTCTCCATCCACAGACAGCGGGAACCTCTATTTGTTT 1426  
RESULT 12  
AAAF21269  
ID AAF21269 standard; DNA: 3958 BP.  
XX  
AC AAF21269;  
XX  
DT 14-MAR-2001 (first entry)  
XX  
DE Human low adenosine antisense oligonucleotide related sequence #2836.  
XX  
KW Low adenosine antisense oligonucleotide; phosphorothioate; allergy;  
KW human; airway disorder; bronchoconstriction; lung inflammation;  
KW surfactant depletion; respiratory; bronchodilator; antiinflammatory;  
KW immunosuppressive; antiallergic; analgesic; hypotensive; cytostatic;  
KW respiratory obstruction; pulmonary obstruction; impeded respiration;  
KW surfactant hypoproduction; pulmonary vasoconstriction; asthma; RDS;  
KW respiratory distress syndrome; pain; cystic fibrosis; allergic rhinitis;  
KW pulmonary hypertension; emphysema; pulmonary transplantation rejection;  
KW chronic obstructive pulmonary disease; pulmonary infection; bronchitis;  
KW cancer; ss.  
XX  
OS Homo sapiens.  
PN WO200062736-A2.  
PD 26-OCT-2000.  
PE 24-MAR-2000; 2000WO-US08020.  
PR 06-APR-1999; 99US-0127958.  
PA (UYEC-) UNIV EAST CAROLINA.  
XX (NYCE/) NYCE J W.  
XX

PI Nyce JW;  
XX WPI: 2000-679539/66.  
XX  
PT Low adenosine (A) content antisense oligonucleotides which do not  
PT trigger adenosine receptors during metabolism, useful e.g. for treating  
PT cancers and respiratory obstructions -  
XX  
PS Disclosure: Page 1183-1184; 1592pp; English.  
XX  
CC The present invention describes low adenosine (A) content antisense  
CC oligonucleotides and compositions (i) comprising them. In the antisense  
CC oligonucleotides the A is replaced by a 'universal' or alternative base.  
CC (I) can have respiratory, bronchodilator, antiinflammatory, analgesic,  
CC immunosuppressive, antiallergic, hypotensive and cytostatic activities.  
CC The antisense oligonucleotides and (I) can be used to down-regulate the  
CC expression and or activity of target polypeptides associated with  
CC lung/respiratory disorders and malignancies, such as stimulating and  
CC activating peptide factors and transmitters, transcription factors,  
CC immunoglobulins and antibodies, antibody receptors, cytokines and  
CC chemokines, endogenously produced specific and non-specific enzymes,  
CC binding proteins, adhesion molecules and their receptors, cytokine and  
CC chemokine receptors, adenosine receptors, bradykinin receptors, central  
CC nervous system (CNS) and peripheral nervous and non-nervous system  
CC receptors, CNS and peripheral nervous and non-nervous system peptide  
CC transmitters, defensins, growth factors, vasoactive peptides and  
CC receptors, binding proteins and malignancy associated proteins. The  
CC antisense oligonucleotides may be used in this way to treat disorders  
CC including respiratory obstruction (especially pulmonary obstruction  
CC and/or bronchoconstriction) and/or lung inflammation, allergy(ies)  
CC and/or surfactant hypoproduction which are associated with a disease or  
CC condition selected from pulmonary vasoconstriction, inflammation,  
CC allergies, asthma, impeded respiration, respiratory distress syndrome  
CC (RDS), pain, cystic fibrosis (CF), allergic rhinitis (AR), pulmonary  
CC hypertension, emphysema, chronic obstructive pulmonary disease (COPD),  
CC pulmonary transplantation rejection, pulmonary infections, bronchitis,  
CC and/or cancer. AAF18434 to AAF21543 represent human polynucleotide  
CC fragments and antisense oligonucleotides used in the exemplification of  
CC the present invention.  
XX  
SQ Sequence 3958 BP: 939 A; 1025 C; 855 G; 1138 T; 1 other:  
XX  
Query Match 100.0%; Score 1065; DB 21; Length 3958;  
Best Local Similarity 100.0%; Pred. No. 3.2e-313;  
Matches 1065; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
Qy 1 ATGACAACCTCAGTATGACAGTGTGATGACAGTCTTGTACACACTCTACTATGATGACGTG 60  
Db 1 ATGACAACCTCAGTATGACAGTGTGATGACAGTCTTGTACACACTCTACTATGATGACGTG 60  
Qy 61 GGCCTGCTCTGTGAAGAAAGCTGATACAGAGCAGTATGATGATGATGATGATGATGATG 120  
Db 61 GGCCTGCTCTGTGAAGAAAGCTGATACAGAGCAGTATGATGATGATGATGATGATGATG 120  
Qy 121 TACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 180  
Db 121 TACTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 180  
Qy 181 AATATACAGAGGCTCCGATATATGACCAACATCTACCTGCTACCTGCTGCTGCTGCTG 240  
Db 181 AATATACAGAGGCTCCGATATATGACCAACATCTACCTGCTACCTGCTGCTGCTGCTG 240  
Qy 241 CTGCTCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 300  
Db 241 CTGCTCTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 300  
Qy 301 TTTGGCCATGCGCATGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 360  
Db 301 TTTGGCCATGCGCATGTGATGATGATGATGATGATGATGATGATGATGATGATGATGATG 360  
Qy 361 ATCTTTTTCATATATCTGCTGATGATGATGATGATGATGATGATGATGATGATGATGAT 420  
Db 361 ATCTTTTTCATATATCTGCTGATGATGATGATGATGATGATGATGATGATGATGATGAT 420

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OY 421 GCCCTTCGAGCCCGAGCTGCTACTTTGGTGCATCCAGCATGCTGACCTGGGCGTG 480
DB 421 GCCCTTCGAGCCCGAGCTGCTACTTTGGTGCATCCAGCATGCTGACCTGGGCGTG 480
OY 481 GCAGTGTAGAGAGCTCTTCGTAATTTATCTCTATGAGAGCTGAAGAGTTGTTGAAG 540
DB 481 GCAGTGTAGAGAGCTCTTCGTAATTTATCTCTATGAGAGCTGAAGAGTTGTTGAAG 540
OY 541 ACTCTTTGAGAGCTCTTACCCAGAGATATAGCTGAGAGATTTCCACT 600
DB 541 ACTCTTTGAGAGCTCTTACCCAGAGATATAGCTGAGAGATTTCCACT 600
OY 601 CTGAGATGACCATCTTCTGCTCGTTCCTCTGCTGCTGATGAGCCATGCTACACA 660
DB 601 CTGAGATGACCATCTTCTGCTCGTTCCTCTGCTGCTGATGAGCCATGCTACACA 660
OY 661 GGAATCATCAAAACGCTGCTGAGTGCCCGAGTAAAAAAGTACAAAGCCATCCGGCTC 720
DB 661 GGAATCATCAAAACGCTGCTGAGTGCCCGAGTAAAAAAGTACAAAGCCATCCGGCTC 720
OY 721 ATTTTGTATATAGGCGGTGTTTTTTCATTTCTGACACCTTACATGTTGGCTATCCTT 780
DB 721 ATTTTGTATATAGGCGGTGTTTTTTCATTTCTGACACCTTACATGTTGGCTATCCTT 780
OY 781 CTCTCTCTATCAATCCATCTTATTTGGAATGACTGTGAGGAGCAAGCATCTGGAC 840
DB 781 CTCTCTCTATCAATCCATCTTATTTGGAATGACTGTGAGGAGCAAGCATCTGGAC 840
OY 841 CTGTGTATGCTGTGACAGAGTGATGCCCTACTCCACTGCTGCTGATGAACCCGGTGATC 900
DB 841 CTGTGTATGCTGTGACAGAGTGATGCCCTACTCCACTGCTGCTGATGAACCCGGTGATC 900
OY 901 TACGCTTTGTTGAGAGAGGTTCCGGAAGTACCTGCGGCACTTCTGCACAGGCGACTTG 960
DB 901 TACGCTTTGTTGAGAGAGGTTCCGGAAGTACCTGCGGCACTTCTGCACAGGCGACTTG 960
OY 961 CTCATGACACCTGGGAGATATATCCATTCCTCTAGTGAAGAGCTGGAAGAACACAGC 1020
DB 961 CTCATGACACCTGGGAGATATATCCATTCCTCTAGTGAAGAGCTGGAAGAACACAGC 1020
OY 1021 TCTGTCTCCATCCACAGAGCGGGAACCTCTATTTGTTT 1065
DB 1021 TCTGTCTCCATCCACAGAGCGGGAACCTCTATTTGTTT 1065

RESULT 13
AAA35147
ID AAA35147 standard; DNA; 3958 BP.
XX
AC AAA35147;
XX
DT 28-JUL-2000 (first entry)
XX
DE Human adenosine receptor related polynucleotide 2nd SEQ ID NO:21.
KW Human; adenosine receptor; low adenosine antisense oligonucleotide;
KW phosphorothioate; impaired respiration; inflammation; allergy;
KW allergic disease; bronchoconstriction; inhibitor; antiinflammatory;
KW antiallergic; antiasthmatic; cyostatic; analgesic; impaired airway;
KW lung disease; ischaemic condition; pulmonary vasoconstriction; asthma;
KW respiratory distress syndrome; pain; cystic fibrosis; emphysema;
KW pulmonary hypertension; chronic obstructive pulmonary disease; COPD;
KW cancer; leukaemia; lymphoma; carcinoma; metastasis; ss.
XX
OS Homo sapiens.
PN WO200009525-A2.
XX
PD 24-FEB-2000.
XX
PF 03-AUG-1999; 99WO-US17712.
XX

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PR 03-AUG-1998; 98US-0095212.
XX
PA (USPC-) UNIV EAST CAROLINA.
XX
PI Nyce JW;
DR WPI; 2000-205971/18.
XX
PT New antisense oligonucleotides useful for treating e.g. pulmonary
PT vasoconstriction, inflammation, allergies, asthma, hypertension or
PT bronchitis, emphysema, respiratory distress syndrome, ischemia or
PT cancers
PS Disclosure: Page 1103-1104; 1343pp; English.
XX
CC The present invention describes a new composition comprising an
CC antisense oligonucleotide (ON) with low adenosine (up to 15%), which
CC targets nucleic acids involved in bronchoconstriction, allergies, and/or
CC inflammation. The ON can have antiinflammatory, antiallergic,
CC antiasthmatic, cyostatic and analgesic activities. The compositions are
CC useful for the treatment of diseases associated with inflammation,
CC impaired airways, including lung disease and diseases whose secondary
CC effects afflict the lungs of a subject. They can be used for treating
CC e.g. ischaemic conditions, pulmonary vasoconstriction, allergies,
CC asthma, impaired respiration, respiratory distress syndrome, pain, cystic
CC fibrosis, pulmonary hypertension, emphysema, chronic obstructive
CC pulmonary disease (COPD), and cancers such as leukaemias, lymphomas,
CC carcinomas, and cancers which may metastasise to the lungs, including
CC breast and prostate cancer. The reduction of the adenosine content of
CC the ONs reduces side effects. The A-containing ONs break down with the
CC release of deoxyadenosine which activates adenosine receptors causing
CC bronchoconstriction and inflammation. AAA3213 to AAA35312 represent the
CC nucleotide sequences given in the sequence listing from the present
CC invention, which correspond to SEQ ID NO:1 to 2815, and then the last
CC 185 sequences are also called SEQ ID NO:1 to 185, but the sequences
CC differ from the previously named sequences. SEQ ID NO:11 to 1680
CC (AAA32323 to AAA33992) are specifically claimed ONs from the present
CC invention. N.B. Sequences given in the disclosure of the present
CC invention do not match up with their corresponding SEQ ID NO: sequences
XX given in the sequence listing.
SQ Sequence 3958 BP; 939 A; 1025 C; 855 G; 1138 T; 1 other:
XX
Query Match 100.0%; Score 1065; DB 21; Length 3958;
Best Local Similarity 100.0%; Pred. No. 3.2e-313;
Matches 1065; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
OY 1 ATGACACCTGCTAGATACAGTGTGAGACCTTTGGTACACATCTCTATATATGACGTG 60
DB 1 ATGACACCTGCTAGATACAGTGTGAGACCTTTGGTACACATCTCTATATATGACGTG 60
OY 61 GGCCTGCTCTGTGAAAACCTGTATACAGAGCAGTATGGCCAGTTTGGCCCCGGTG 120
DB 61 GGCCTGCTCTGTGAAAACCTGTATACAGAGCAGTATGGCCAGTTTGGCCCCGGTG 120
OY 121 TACTCCCTGTGTACTGTGAGGCTCTTGGGCAATGTGTGTGTATGATCTCATTA 180
DB 121 TACTCCCTGTGTACTGTGAGGCTCTTGGGCAATGTGTGTGTATGATCTCATTA 180
OY 181 AANTACAGAGGCTCCGAATTTATGACCAACATCTACCTGCTTAACCTGGCCATTTGGAC 240
DB 181 AANTACAGAGGCTCCGAATTTATGACCAACATCTACCTGCTTAACCTGGCCATTTGGAC 240
OY 241 CTGCTCTCTGCTGACCTTCCTCATCTGAGATCCATATGTCAGGGGGCATATGCGGTT 300
DB 241 CTGCTCTCTGCTGACCTTCCTCATCTGAGATCCATATGTCAGGGGGCATATGCGGTT 300
OY 301 TTTGGCATGAGATGTATAGCTCTCTCAGGGTTTATACACAGAGCTTGTACAGCGAG 360
DB 301 TTTGGCATGAGATGTATAGCTCTCTCAGGGTTTATACACAGAGCTTGTACAGCGAG 360
OY 361 ATCTTTTATATATCTGCTGACATCGACAGGTACCTGGCATTTGCTATGCTGTGTTT 420
DB 361 ATCTTTTATATATCTGCTGACATCGACAGGTACCTGGCATTTGCTATGCTGTGTTT 420

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Db 361 ATCTTTTCAATAAATCCCTGCTGACAAATCGACAGGTACCTGGCCATTTGTCATGCTGTGTTT 420
QY 421 GCCCTTCGAGCCGGAGCTGTCACTTTTGTGTATCATCACAGCATTCGTACCTGGGCGCTG 480
Db 421 GCCCTTCGAGCCGGAGCTGTCACTTTTGTGTATCATCACAGCATTCGTACCTGGGCGCTG 480
QY 481 GCAGTGTACAGACTCTTCTGTAATTTATCTGTATGAGACTGAAGATTGTTGAAGAG 540
Db 481 GCAGTGTACAGACTCTTCTGTAATTTATCTGTATGAGACTGAAGATTGTTGAAGAG 540
QY 541 ACCTTTGGCAGTGTCTTTTACCCAGAGAGATACAGTATATAGCTGGAGGCAATTTCCACACT 600
Db 541 ACCTTTGGCAGTGTCTTTTACCCAGAGAGATACAGTATATAGCTGGAGGCAATTTCCACACT 600
QY 601 CTGAGATGACCATCTTCTGTCTGCTCTCCCTGCTCTGTTATGAGGCATCTGTACACA 660
Db 601 CTGAGATGACCATCTTCTGTCTGCTCTCCCTGCTCTGTTATGAGGCATCTGTACACA 660
QY 661 GGAATCATCAAAACGCTGTGAGGTGCCCAAGTAAAAAAGTACAAGGCCATCCGGCTC 720
Db 661 GGAATCATCAAAACGCTGTGAGGTGCCCAAGTAAAAAAGTACAAGGCCATCCGGCTC 720
QY 721 ATTTTGTCAATCAATGCGGTGTTTTCATTTTCTGAGACACCTACATGTGCTATCTT 780
Db 721 ATTTTGTCAATCAATGCGGTGTTTTCATTTTCTGAGACACCTACATGTGCTATCTT 780
QY 781 CTCTCTTCATCAATCAATCTTATTGTAATGACTGTGAGGAGCAAGCATCTGAGC 840
Db 781 CTCTCTTCATCAATCAATCTTATTGTAATGACTGTGAGGAGCAAGCATCTGAGC 840
QY 841 CTGCTCTGCTGTGAGAGAGGTATCCCTACTCCACTGCTGCATGAACCCGGTGATC 900
Db 841 CTGCTCTGCTGTGAGAGAGGTATCCCTACTCCACTGCTGCATGAACCCGGTGATC 900
QY 901 TAGCCCTTTTGTGAGAGAGGTTCGGAAATACCTGGCCACTTTTCCACAGGCACTTG 960
Db 901 TAGCCCTTTTGTGAGAGAGGTTCGGAAATACCTGGCCACTTTTCCACAGGCACTTG 960
QY 961 CTGATGACCTGGGAGATGATCCCATTCCTCTGTAGAGAAAGCTGGAAGAACAGC 1020
Db 961 CTGATGACCTGGGAGATGATCCCATTCCTCTGTAGAGAAAGCTGGAAGAACAGC 1020
QY 1021 TCTGTCTCTCAATCCACAGCAGAGCCGGAATCTCTATTTGTTT 1065
Db 1021 TCTGTCTCTCAATCCACAGCAGAGCCGGAATCTCTATTTGTTT 1065

RESULT 14
AAT93601
ID AAT93601 standard; cDNA; 5099 BP.
XX
AC AAT93601:
XX
DT 07-MAY-1998 (first entry)
XX
DE Human eosinophil eotaxin receptor CC CKR3 encoding cDNA.
XX
KM Eosinophil eotaxin receptor; CC CKR3; human; treatment: dermatitis;
KM atopic condition; allergic rhinitis; conjunctivitis; bronchial asthma;
KM beta-chemokine receptor; viral infection; ss.
XX
OS Homo sapiens.
XX
FH key Location/Qualifiers
FT misc_feature 1..3586
FT /*tag= a
FT /note= "5' genomic DNA flanking sequence"
FT CDS 3587..4654
FT /*tag= b
FT /product= "human eosinophil eotaxin receptor"
FT misc_feature 4655..5099
FT /*tag= c
FT /note= "terminator region"
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XX XX
PN MO9741154-A1.
XX
PD 06-NOV-1997.
XX
PF 24-APR-1997; 97WO-US06568.
XX
PR 17-JAN-1997; 97GB-0000894.
PR 26-APR-1996; 96US-0016158.
PR 26-APR-1996; 96US-0017113.
XX
PA (MERK ) MERCK & CO INC.
PI Daugherty BL, Demartino JA, Siciliano SJ, Springer MS;
DR WPI: 1997-549685/50.
XX P-PSDB; AANJ1850.
XX
PT New isolated human eosinophil eotaxin receptor - used to develop
PT products for treating and preventing atopic conditions e.g. allergic
PT rhinitis, dermatitis, conjunctivitis and bronchial asthma
XX
PS Claims 12, 13, 14; Pages 16-20; 51pp; English.
XX
CC This cDNA encodes a human eosinophil eotaxin receptor. This 5099 base
CC pair sequence comprises a 1065 base pair open reading frame encoding a
CC 355 amino acid eosinophil eotaxin receptor protein, flanked by a 5'
CC genomic DNA sequence and a 3' terminator region. This novel eosinophil
CC eotaxin receptor is a human beta-chemokine receptor designated CC CKR3.
CC Agents which bind to this eosinophil eotaxin receptor can be used for
CC the treatment and prevention of atopic conditions such as allergic
CC rhinitis, dermatitis, conjunctivitis and bronchial asthma. Agents which
CC block this eosinophil eotaxin receptor can be used to prevent viral
CC infection in healthy individuals and slow or halt viral progression
XX
SQ Sequence 5099 BP; 1388 A; 1171 C; 1013 G; 1527 T; 0 other;

Query Match 100.0%; Score 1065; DB 18; Length 5099;
Best Local Similarity 100.0%; Pred. No. 3, 6e-313;
Matches 1065; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 ATGACAACCTCACTAGATAGATTGAGACCTTTGTACACATCTTACTATGATGACGTG 60
Db 3587 ATGACAACCTCACTAGATAGATTGAGACCTTTGTACACATCTTACTATGATGACGTG 3646
QY 61 GGCCCTGCTGTGAAAAAGCTGATPACAGACACTGATGGCCCAAGTTTGCCCCGCTG 120
Db 3647 GGCCCTGCTGTGAAAAAGCTGATPACAGACACTGATGGCCCAAGTTTGCCCCGCTG 3706
QY 121 TACTCCCTGTGTTCACCTGTGGGCTCTTGGCAATGTGGTGATGATGATCCTATTA 180
Db 3707 TACTCCCTGTGTTCACCTGTGGGCTCTTGGCAATGTGGTGATGATGATCCTATTA 3766
QY 181 AAATACAGAGGCTCCGAATTTATGACCAACATCTACTGCTCAACCTGGCCATTTGGAC 240
Db 3767 AAATACAGAGGCTCCGAATTTATGACCAACATCTACTGCTCAACCTGGCCATTTGGAC 3826
QY 241 CTGCTCTCTCTGTCACCTCTTCCATCTTGGATGCACATATGTCAGGGGCAATTAAGTGGTT 300
Db 3827 CTGCTCTCTCTGTCACCTCTTCCATCTTGGATGCACATATGTCAGGGGCAATTAAGTGGTT 3886
QY 301 TTGGCCATGAGCATGTGTAGAGTCCCTCAGGGTTTATACACAGGCTGTACAGGAG 360
Db 3887 TTGGCCATGAGCATGTGTAGAGTCCCTCAGGGTTTATACACAGGCTGTGTACAGGAG 3946
QY 361 ATCTTTTCAATAAATCCCTGCTGACAAATCGACAGGTACCTGGCCATTTGTCATGCTGTGTTT 420
Db 3947 ATCTTTTCAATAAATCCCTGCTGACAAATCGACAGGTACCTGGCCATTTGTCATGCTGTGTTT 4006
QY 421 GCCCTTCGAGCCGGAGCTGTCACTTTTGTGTATCATCACAGCATTCGTACCTGGGCGCTG 480
Db 4007 GCCCTTCGAGCCGGAGCTGTCACTTTTGTGTATCATCACAGCATTCGTACCTGGGCGCTG 4066
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QY 421 GCCCTTCGAGCCGGAGCTGTCACCTTTTGGTGATCACCAGCATGTCACCTGGGGCCTG 480  
 |||||  
 Db 625 GCCCTTCGAGCCGGAGCTGTCACCTTTTGGTGATCACCAGCATGTCACCTGGGGCCTG 684  
 QY 481 GCAGTGTAGCAGCTCTTCTGAAATTTATCTTCTATGAGACTGAAGAGTTGTTGAAGAG 540  
 |||||  
 Db 685 GCAGTGTAGCAGCTCTTCTGAAATTTATCTTCTATGAGACTGAAGAGTTGTTGAAGAG 744  
 QY 541 ACTCTTTCAGATGCTCTTACCAGAGATACAGTATATAGCTGAGGCAATTTCCACACT 600  
 |||||  
 Db 745 ACTCTTTCAGATGCTCTTACCAGAGATACAGTATATAGCTGAGGCAATTTCCACACT 804  
 QY 601 CTGAGAAATGACCATCTTCTGTCGCTTCCCTGCTGCTGTTATGGCCATCTGTACACA 660  
 |||||  
 Db 805 CTGAGAAATGACCATCTTCTGTCGCTTCCCTGCTGCTGTTATGGCCATCTGTACACA 864  
 QY 661 GGAATCATCAAAAACGCTGTAGGTGCCCCAGTAAAAAAGTACAGAGCCATCCGGCTC 720  
 |||||  
 Db 865 GGAATCATCAAAAACGCTGTAGGTGCCCCAGTAAAAAAGTACAGAGCCATCCGGCTC 924  
 QY 721 ATTTTGTATCATATGCGGTGTTTTCATTTCTGTGACACCCCTACATGTGGCTATCCTT 780  
 |||||  
 Db 925 ATTTTGTATCATATGCGGTGTTTTCATTTCTGTGACACCCCTACATGTGGCTATCCTT 984  
 QY 781 CTCTCTTCTATCAATCCATCTTATTTGAAATGACTGTGAGCGGAGCAAGCATCTGGAC 840  
 |||||  
 Db 985 CTCTCTTCTATCAATCCATCTTATTTGAAATGACTGTGAGCGGAGCAAGCATCTGGAC 1044  
 QY 841 CTGATCATGCTGTGTAGCAGAGGTGATGCGCTACTCCACTGCTGATGTAACCCGGTGATC 900  
 |||||  
 Db 1045 CTGATCATGCTGTGTAGCAGAGGTGATGCGCTACTCCACTGCTGATGTAACCCGGTGATC 1104  
 QY 901 TACGCTTTTGTGGAGAGGTTCCGGAAGTACTGCGCCACTTCTTCCACAGGCACCTTG 960  
 |||||  
 Db 1105 TACGCTTTTGTGGAGAGGTTCCGGAAGTACTGCGCCACTTCTTCCACAGGCACCTTG 1164  
 QY 961 CTGATGACACTGGGAGATATACATCCCATCTTCTTCTAGTGAAGCTGGAAGAACCAAGC 1020  
 |||||  
 Db 1165 CTGATGACACTGGGAGATATACATCCCATCTTCTTCTAGTGAAGCTGGAAGAACCAAGC 1224  
 QY 1021 TCTGTCTCTCATTCACAGCAGAGCGGAACTCTATTTGTGTTT 1065  
 |||||  
 Db 1225 TCTGTCTCTCATTCACAGCAGAGCGGAACTCTATTTGTGTTT 1269

Search completed: February 24, 2003, 14:22:01  
 Job time : 250.618 secs

